

# 100 Ayurvedic Herbs Made Easy

## Part 1

By

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## ***Dedication:***

*At the holy feet of Dr A Chandrashekhara Udupa  
(Poojya Doctorji), Managing Director of Divine Park Trust ® and my Spiritual Guru.*



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*Disclaimer:*

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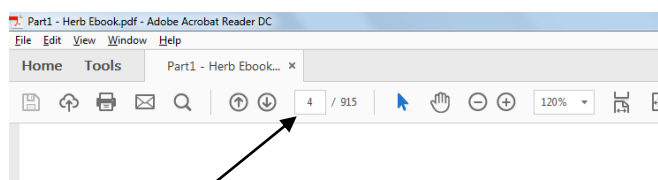
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### **Instructions:**

1. Page 4 contains index. From any part of the ebook, to go to the index, type 4 in the page number box of pdf reader and **press enter.**



2. In the index, click on the name of the herb to go to the details of that her.

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## **1. Chakshushya: Cassia absus: Chaksu seeds Uses, Dose**

Chakshushya - Cassia absus is the name given to the herb by the Nighantu granthas as it is applied as collyrium in eye disorders. The drug has not been mentioned in Charaka Samhita.

Botanical Name - Cassia absus Linn.

Family - Caesalpiniaceae

### **Cassia absus - Names in different languages:**

English name - Jasmeejaz, Chaksu seeds

Hindi name - Chakanu

Telugu name - Chanubala Vittulu

Tamil name - Karum

Marathi name - Chinola

Unani - Chaakshu

Gujarathi name - Chimed

### **Sanskrit Synonyms of Chaksu seeds**

Kulutthika, Kulali, Vanya Kuluttha, Aranya Kulatthika

The synonyms indicate about the morphology of the plant along with its habitat i.e. it resembles the wild variety of kuluttha plant and is available in the forests.

The plant is a small herb growing up to 50 cm bearing reddish yellow flowers. It is seen throughout India from the Himalayas to temperate parts. The seeds are black in color.



## **Medicinal Properties of Cassia absus plant and seeds:**

Rasa (Taste) - Tikta - bitter, Kashaya - astringent

Veerya (Potency) - Sheeta - Coolant

Guna (Qualities) - Laghu - light to digest, Rooksha - Dry in nature

Vipaka - Katu - After digestion it undergoes into pungent taste

Prabhava (Special effects) - Chakshushya (good for improving the eye sight)

**Effect on Tridosha** - As the herb is predominant of Kashaya and Tikta rasa, it is Kapha Pitta shamaka (reduces the vitiated Kapha and Pitta)

**Part used** - Cassia absus seeds

### **Major chemical Constituents**

Leaves - Quercetin, Rutin

Root - Chaksine & Isochaksine

Seed - Beta Sitosterol, Hydnocarpin, Apigenin, Raffinose

Chaksine is found to be antibacterial. It stimulates contraction of plain muscles like uterus, intestine, bladder and muscles in the blood vessels. Chaksine has ganglion blocking property.

**Dosage** - Seed powder 3 - 6 g (CCRAS)

The kashaya (decoction) can be taken in a dose of 15 - 20ml thrice a day after food, whereas the powder can be taken in a dose of 3 - 5g thrice a day.

चक्षुष्या दृक्प्रसादा च सैव प्रोक्ता कुलत्थिका ।

कुलाली लोचनहिता कुम्भारी मलापहा ॥

हिमा प्रोक्ता कषाया च विषम् स्थावर जङ्गमम् ।

छिनति योजिता सम्यक् नेत्रसावननेकशः ॥

सा च विस्फोट कण्ड्वर्ति व्रणदोष निबर्हणी । धन्वन्तरि निघण्टु

कुलत्थिका तु चक्षुष्या कषाया कटुका हिमा ।

विष विस्फोट कण्डू अतिव्रणदोष निबर्हिणी ॥ राज निघण्टु

कुलत्था दृक्प्रसादा च ज्ञेया अरण्य कुलत्थिका ।

कुलाली लोचनहिता चक्षुष्या व्रणरोपणी ॥ राज निघण्टु

आरन्याश्छगणरसे पटावबद्धाः ॥

सुस्विन्ना नखवितुषी कृताः कुलत्थाः ।

तच्चूर्णं सकृदवचूर्णनान्निशीथे ॥

नेत्राणां विधमति सद्य एव कोपम् ॥ (Ashtanga Sangraha Uttara

Tantra १९/९)

ca kṣuṣyā dṛkprasādā ca saiva proktā kulatthikā |

kulālī locanahitā kumbhārī malāpahā ||

himā proktā kaṣāyā ca viṣam sthāvara jaṅmamam |

chinatti yojitā samyak netrasrāvananekaśa: ||

sā ca visphoṭa kaṇḍvarti vraṇadoṣa nibarhaṇī | dhanvantari  
nighaṇṭu

kulatthikā tu cakṣuṣyā kaṣāyā kaṭukā himā |

viṣa visphoṭa kaṇḍū ativraṇadoṣa nibarhiṇī || rāja nighaṇṭu

kulatthā dr̥kprasādā ca jñeyā araṇya kulatthikā |

kulālī locanahitā cakṣuṣyā vraṇaropaṇī || rāja nighaṇṭu

āraṇyāśchagaṇarase paṭāvabaddhāḥ||

susvinnā nakhavituṣī kṛtāḥ kulatthāḥ|

taccūrṇaṃ sakṛdavacūrṇanānniśīthe||

netrāṇāṃ vidhamati sadya eva kopam || (Ashtanga Sangraha  
Uttara Tantra 19/9)

### **Uses of Cassia absus:**

- Used externally as a paste or collyrium in eye diseases like netra abishyanda (conjunctivitis), potaki (trachoma), netrasrava (Chronic dacryocystitis).
- Externally used as paste for wound healing, skin diseases like Dadru (ringworm)
- Used internally in the form of kashaya (decoction) to treat diseases like Grahani (irritable bowel syndrome), raktatisara (diarrhea with blood)
- Used internally in powder form to treat ashmari (renal stones), mootrakrichha (difficulty in micturition).

- Used internally in the form of kashaya to stop internal bleeding.
- Used internally in the form of kashaya to treat sthavara and jangama visha (poison of plant and animal origin).
- Chaksu seeds or its soaked seed powder, in a dose of 1 - 2 grams is administered for the treatment of hypertension.

Ayurvedic formulation containing Chakshushya: This drug is not known to be used by any of the ayurvedic manufacturers in any formulations.

### **Research articles on Chakshushya:**

The analysis of Cassia absus Linn. seeds showed **antimicrobial activity**

### **Botanical classification:**

Kingdom: Plantae

Division: Magnoliophyta

Class: Magnoliopsida

Order: Fabales

Sub Family: Caesalpinioideae

Tribe: Cassieae

Genus: Cassia

Species: Absus

### **Classical categorization:**

Dhanvantari nighantu - Chandanadi Varga

Raja Nighantu - Parpatadi Varga

## 2. Horse Gram Uses, Recipes, Side Effects

Horse gram - *Dolichos biflorus* Linn. is an ayurvedic herb used for the treatment of kidney stones, cough, asthma, piles etc. It is called Kulattha in Ayurveda.

Botanical Name - *Dolichos biflorus* Linn.

Family - Leguminosae

### Names in different languages:

English name - Horsegram, Cowpea

Hindi name - Kulathi

Telugu name - Ulavalu

Kannada name - Huruli

Tamil name - Kollu

Unani - Kulthi



**Habitat:** Horsegram is a shrub grown and cultivated in the plains of Indian states like Maharashtra, Andhra Pradesh, Karnataka, Madhya Pradesh, for its seed. The whole seeds of horsegram is used as cattle feed. Its whole seed is also consumed, as sprouts or whole meal in some parts of India.

**Sanskrit Synonyms:** Kulattha, Kulatthika, Peetamudga,

## **Varieties:**

The herb Kulattha is available in two types based upon the cultivating pattern

- Wild variety
- Local grown variety

Dolichos biflorus is classified into 4 types based upon the color of the seeds

- Red
- White
- Black
- Brownish



## **Horsegram medicinal properties:**

Rasa (Taste) - Kashaya - astringent

Veerya (Potency) - Ushna - Hot

Guna (Qualities) - Laghu - light to digest, Rooksha - Dry in nature, Teekshna - Pungent

Vipaka - Amla - After digestion it undergoes into sour taste  
Prabhava (Special effects) - Ashmari Bhedana - breaks down the renal stones

**Effect on Tridosha** - As the drug is predominant of Kashaya rasa, it is Kapha vata shamaka (reduces the vitiated Kapha and Vata) and Rakta Pitta kopaka (increases the Rakta and Pitta dosha)

**Part used** - Seeds which are reddish brown in color.

### **Major chemical Constituents of Kulthi:**

Horsegram seeds contain 21% of crude protein, 11% of pentosan and about 3% of water soluble gum. They also contain traces of urease and phosphorus. The other chemical constituents present in the seeds are Genistein, Dalberoidin, Phasw and Collidin.

### **Nutritional value:**

The mean protein value of the horsegram seeds is 25.5% which is more or less equivalent to soyabean, winged bean. Nutritionally the horsegram seeds are richer in lysine content when compared to gram pulse.

The leaves of the herb Dolichos biflorus may be used in Vitamin C deficiency, due to the presence of ascorbic acid and calcium.

**Dosage** - Seed powder - 4 - 6 g

**Decoction of the seed** - 40 - 50ml per day in divided doses.

**Paste of seed:** For external application.

### **Uses of Dolichos biflorus:**

- The paste of Kulatta seeds are used for fomentation to relieve localized swelling. The seeds stimulate and increases sweating, thus opening the sweat pores of the body to push out the toxins from the body.
- The seed of the herb is powdered, burnt and the smoke coming from it is inhaled to relieve hiccups.
- Cold infusion (Hima) of the seeds of horsegram is taken in a dosage of 80 - 100ml per day to treat renal calculi, difficulty in micturition and pain in the urinary bladder.
- The powder of the seeds in a dosage of 10 - 12g per day is used to treat renal calculi.
- Seeds of Dolichos biflorus is given in the form of decoction to relieve intestinal worms, treat piles and relieve constipation.
- It induces menstrual periods. Hence people with prolonged menstrual cycle, scanty bleeding (oligomenorrhoea), are advised to use horse gram in their diet regularly.
  - कुलत्थयूषो वीर्योष्णः कषायो मधुरोऽग्निकृत् ॥७६॥
  - वातानुलोमी गुल्मार्शोबलासानिलमेहनुत् ।



- मेदोऽश्मशर्कराश्वासकासतूनिप्रतूनिजित् ॥७७॥

कैयदेवनिघण्टु - कृतान्नवर्ग

- कुलत्थास्ताम्रवर्णाश्च कलावृत्तानिलापहाः । कर्षणाः पीतमुद्गाश्च  
अलिस्कन्धाः सुराष्ट्रकाः ॥९८॥ उष्णः कुलत्थो रसतः कषायः  
कटुर्विपाके कफमारुतघ्नः । शुक्राश्मरीगुल्मनिषूदनश्च सङ्ग्राहकः  
पीनसकासहन्ता ॥९९॥ आनाहमेदोऽरुचिकीलहिककाश्वासापहः  
शोणितपित्तकृच्च । बलासहन्ता नयनामयघ्नो विशेषतो वन्यकुलित्थ  
उक्तः ॥१००॥धन्वन्तरिनिघण्टु - सुवर्णादिवर्ग

- कुलत्थिका कुलत्थश्च कथ्यन्ते तद्गुणा अथ । कुलत्थः कटुकः पाके  
कषायः पित्तरक्तकृत् । लघुर्विदाही वीर्योष्णः श्वासकासकफानिलान्  
॥५१॥ हन्ति हिक्काऽश्मरीशुक्रदाहानाहान्सपीनसान् । स्वेदसंग्राहको  
मेदोज्वरक्रिमिहरः परः ॥५२॥भावप्रकाश - धान्यवर्ग

•

- कुलत्था दृक्प्रसादा च ज्ञेयाऽरण्यकुलत्थिका । कुलाली लोचनहिता  
चक्षुष्या कुम्भकारिका ॥७१॥ कुलत्थिका कटुस्तिका  
स्यादर्शःशूलनाशनी । विबन्धाध्मानशमनी चक्षुष्या व्रणरोपणी  
॥७२॥राजनिघण्टु - पर्पटादिवर्ग

- kulatthayūṣo vīryoṣṇaḥ kaṣāyo madhuro'gnikṛt ॥76॥

- vātānulomī gulmārśobalāsānilamehanut |
- medo'śmaśarkarāśvāsakāsatūnipratūnijit ||77||

kaiyadevanighaṇṭu - kṛtānavarga

- kulatthāstāmravarṇāśca kalāvṛttānilāpahāḥ | karṣaṇāḥ  
pītamudgāśca aliskandhāḥ surāṣṭrakāḥ ||98|| uṣṇāḥ kulattho  
rasataḥ kaṣāyaḥ kaṭurvipāke kaphamārutaghnaḥ |  
śukrāśmarīgulmaniṣūdanaśca saṅgrāhakaḥ pīnasakāśahantā  
||99|| ānāhamedo'rucikīlahikkāśvāsāpahāḥ śoṇitapittakṛcca |  
balāśahantā nayanāmayaghno viśeṣato vanyakulittha uktaḥ  
||100||dhanvantarinighaṇṭu - suvarṇādivarga

- kulatthikā kulatthaśca kathyante tadguṇā atha | kulatthaḥ  
kaṭukaḥ pāke kaṣāyaḥ pittaraktakṛt | laghurvidāhī vīryoṣṇāḥ  
śvāsakāśakaphānilān ||51|| hanti  
hikkā'śmarīśukradāhānāhānsapīnasān | svedasaṅgrāhako  
medojvarakrimiharaḥ paraḥ ||52||bhāvaprakāśa -  
dhānyavarga

•

- kulatthā dṛkprasādā ca jñeyā'raṇyakulatthikā | kulālī  
locanahitā cakṣuṣyā kumbhakārikā ||71|| kulatthikā  
kaṭustiktā syādarśaḥśūlanāśanī | vibandhādhmānaśamanī  
cakṣuṣyā vraṇaropaṇī ||72||rājanighaṇṭu - parpaṭādivarga

### **Traditional uses:**

Sweda Sangrahaka - it causes sweating

Sara - laxative, promotes movement of liquids in channels

Vidahi - causes burning sensation

Vatanulomi - Causes normal movement of Vata in its proper direction

Shwasa - asthma, respiratory disorders involving difficulty in breathing

Kasa - cold, cough

Diseases of Kapha and Vata Dosha imbalance

Hikka - hiccough

Ashmari - calculi

Daha - Burning sensation

Anaha - bloating

Peenasa - rhinitis

Meda - obesity

Jwara - fever

Krumi - worm infestation (in wounds and in intestines)

Shwasa - asthma, respiratory disorders involving difficulty in breathing

Arsha - Hemorrhoids

Shotha - oedema, swelling, inflammatory conditions.

Udara - Ascites

Tuni, Pratituni - lower abdominal pain

Akshiroga - eye disorders

Horse gram is boiled with water, its steam is used for local

sweating treatment, called Nadi Sweda, in Vata imbalance disorders (**Charaka Vatavyadi Chikitsa**)

### **Use of horse gram in treating piles:**

If the patient is suffering from non bleeding piles with constipation, then he is encouraged to include horse gram in his diet.

But if it is bleeding piles, then it is best to avoid horse gram.

### **Precaution and side effects:**

People suffering from hyperacidity, gastric ulcers should not take this herb or any formulation containing this herb as it will worsen the disease condition.

Acharya Charaka in Ayurveda has said that Kulattha is the herb which can cause amlapitta (Hyperacidity)

It is described as Raktapittakrut - It worsens bleeding disorders. Hence, not ideal in people having nasal bleeding, menorrhagia (heavy periods) etc

Shukrahara - it can decrease semen and sperm quality and quantity. Hence, people seeking male infertility treatment should avoid or reduce the intake of horsegram.

In case of gout, because Rakta dhatu is involved, horse gram is best avoided.

When you are taking Shilajit, Horse gram should be avoided, as it increases Pitta Dosha.

In people taking Tapyadi Yoga, a medicine for the treatment of

anemia, taking horsegram is contra indicated. ([Charaka Pandu Chikitsa](#))

### **Healthy horse gram recipes:**

Take 4 teaspoon horse gram, add half litre of water, hit his mixture up to it reduces to one fifth, collect soup, add 2 teaspoon crushed pome granate seeds, mix, filter and take once a day. This is especially useful in kidney and bladder stones.

Vegetable soup of ber fruit, horsegram, coriander, bael, or barley - are indicated in the treatment of vomitting with gastritis. ([Charaka Chikitsa 20th chapter](#))

### **Formulation containing Kulattha:**

- [Dhanvantaram Ghritam](#) - useful in treating abscess, hemorrhoids, anemia
- [Kolakulathadi Choornam](#) - useful in treating inflammation of joints, lumbago
- [Sukhaprasava Ghritam](#) - for easy delivery
- [Sarvamayantaka Ghritam](#) - useful in treating gout, Parkinson's disease, neck stiffness,

### **Research articles on Dolichos biflorus:**

- Seeds of the herb kulattha is shown to have [anti histaminic action in the management of asthama](#)
- The seeds are [antioxidant and antiradical](#) in nature.

- **Anti obesity property** is seen in the seeds of Dolichos biflorus.
- The seeds are known to have **anti urolithiatic property**.

**Botanical classification:**

Kingdom: Plantae

Family: Fabaceae

Genus: Dolichos

Division: biflorus

**Classical categorization:**

Charaka - Swedopaga - Group of herbs used in sweating treatment

Vagbhata - Niruhopaga - Group of herbs used in Niruha Basti

Kaiyyadeva Nighantu - Krutanna varga

Dhanvantari Nighantu - Suvarnadi varga

Bhava Prakasha - Dhanya varga

Rajanighantu - Parpatadi Varga

### **3. Tinisha - Ogeinia dalbergioides Uses, Dose, Research**

Tinisha - Ougeinia dalbergioides is an ayurvedic herb used in the treatment of Vitiligo, diabetes, anemia, non healing wounds and ulcers. The wood from this tree was used previously to make the wheels of chariot. **Botanical Name** - Lagerstroemia speciosa, Ougeinia dalbergioides Benth.

Synonyms: Ougeinia oojeinensis Roxb.

**Family** - FABACEAE

#### **Names in different languages:**

Hindi Name - Sadana

Malayala Name - Malavenna

Telugu Name - NemmiChettu

Kannada - Kurimutala

Tamil Name - Narivengai

#### **Sanskrit synonyms -**

Syandana, Sarvasara, Ashmagarbha, Shukra Samvarana, Nemi, Shakata, Bhasmagarbha, Meshi, Jaladhara

Rathi, Ratha, Rathadru, Rathvruksha - The wood is strong and hence used to build the wheels of chariot (ratha).

Vanyataru - Tree found in the forests

#### **Habitat -**

The tree of Tinisa grows up to a height of 10 - 15 m in the mountain regions northern and central parts of India with pale pink colored flowers in bunches.

Properties

Rasa (Taste) - Kashaya - astringent

Veerya (Potency) - Sheeta - cold

Guna (Qualities) - Laghu - light for digestion, Ruksha - dry in nature

Vipaka - Katu - pungent after digestion

Karma - Kapha - Pitta hara, Medohara

**Effect on Tridosha** - Tinisha is kapha pitta shamaka (reduces the vitiated kapha and pitta dosha)

**Useful part** - The heart wood and bark are the useful parts of the tree Ougeinia dalbergioides

**Ougeinia oojeinensis Major chemical constituents:**

The leaves and heartwood of Tinisha contain iso - flavinoids - dalbergion, hemoferitin and urgenin. Leaves also contain the flavonoids - kaempferol, quercetin and leucopelargonidin. The stem bark contains lupeol, botulin and about 7% tannins. The heartwood also contains oujenin and homoferreirin.

**Dosage:** 40 - 50 ml of decoction in divided doses

**Paste of the bark** is used for external application

सुगर्भकः सर्वसारः शुक्रसंवरणस्तथा ॥८१५॥ स्यन्दनास्तिनिशो नेमी

रथवृक्षोऽश्मगर्भकः । तिनिशस्तुवरो हन्ति श्चित्रकुष्ठव्रणकृमीन् ॥८१६॥

प्रमेहपाण्डुतादाहबलासं पित्तमेदसी ॥८१७॥कैयदेवनिघण्टु - ओषधिवर्ग



तिनिशः स्यन्दनश्चक्री शताङ्गः शकटो रथः | रथिको भस्मगर्भश्च मेषी  
जलधरो दश ||११४|| तिनिसस्तु कषायोष्णः कफरक्तातिसारजित् | ग्राहको  
दाहजननो वातामयहरः परः ||११५||राजनिघण्टु - प्रभद्रादिवर्ग  
तिनिशः स्यन्दनो नेमी रथद्रुर्वञ्जुलस्तथा | तिनिसः  
श्लेष्मपित्तास्रमेदःकुष्ठप्रमेहजित् | तुवरः श्वित्रदाहघ्नो व्रणपाण्डुकृमिप्रणुत्  
||६२|| - भावप्रकाश - भावप्रकाश

sugarbhakah sarvasārah śukrasaṃvaraṇastathā ||815||  
syandanāstiniśo nemī rathavr̥kṣo'smagarbhakah | tiniśastuvaro  
hanti śvitrakuṣṭhavraṇakṛmīn ||816||  
pramehapāṇḍutādāhabalāsaṃ pittamedasī  
|817|kaiyadevanighaṇṭu - oṣadhivarga

tiniśaḥ syandanaścakrī śatāṅgaḥ śakaṭo rathaḥ | rathiko  
bhasmagarbhaśca meṣī jaladharo daśa ||114|| tiniśastu  
kaṣāyoṣṇaḥ kapharaktātisārajit | grāhako dāhajanano  
vātāmayaharaḥ paraḥ ||115||rājanighaṇṭu - prabhadrādivarga  
tiniśaḥ syandano nemī rathadrurvañjulastathā | tiniśaḥ  
śleṣmapittāsramedahaḥkuṣṭhapramehajit | tuvaraḥ  
śvitradāhaghno vraṇapāṇḍukṛmipraṇut ||62|| - bhāvaprakāśa -  
bhāvaprakāśa

## **Uses of the Tinisha:**

The paste of the bark is applied externally to treat wounds, swollen joints and skin diseases like vitiligo, scabies

Decoction is prepared from the bark or the heartwood of *Ougenis dalberoides* Benth. along with bark of priyala (*Buchnanialanjan*), shalmali (*Shalmalia malabarica*), plaksha (*Ficus lacor*). The prepared decoction is given along with honey in a divided dose of 40 - 50 ml in diarrhea, bleeding piles.

The decoction of the heartwood is given in a dosage of 40 - 50 ml in divided doses in fever, burning sensation of the body and soles of the foot.

The decoction of tinisha is used as a rejuvenator i.e to strengthen the nerves.

The heartwood decoction is given in patients suffering from diabetes.

## **Ayurvedic medicines containing Tinisha:**

(Click on the medicine name to know more about them)

**Asanadi Kashayam** - used in the treatment of diabetes, skin diseases and obesity etc.

**Ayaskriti** - used in anemia, weight loss therapy, skin diseases etc.

## **Research works:**

- The extract of the whole plant tinisa showed **anti-inflammatory, hypotensive, hepato protective action**

- The methanol extract of the leaves of tinsia plant showed **anti - microbial activity**.
- In an experimental study carried in mice, the **ethanol extract of the bark of the plant showed anti - depressant activity**.
- The bark and root extract of the plant showed **anti diabetic properties** in the experimental studies carried in rats.

**Classical categorization:**

Sushruta - Salasaradi gana

Vagbhata - Asanadi gana

Kaiyyadeva Nighantu - Oushadivarga

Raja Nighantu - Prabadrdivarga

**Systemic classification:**

Kingdom: Plantae

Sub kingdom: Phanerogamia

Division: Angiospermia

Class: Dicotyledons

Subclass: Calyciflora

Natural order: Leguminosae

Sub Order: Papilionaceae

#### **4. Irimeda, Arimeda, Acacia farnesiana: Uses, Dose, Side Effects**

Irimeda - Acacia farnesina Wild. is an Ayurvedic herb used for relieving pain and inflammation of the tissues, bronchitis and in controlling the bleeding from wounds.

Botanical Name - Acacia farnesiana Wild, Vachellia farnesiana, Mimosa farnesiana

Family - Mimosaceae

English name - Sweet acacia, Needle bush, Mimosa bush,

Perfume Acacia (flower is used for preparing perfumes -

Cassie), Cassie flower, Ironwood, Sweet acacia, Sweet wattle

Hindi name - Guh babool, Gukikar, Gandh babool

Kannada name - Kasturigibbali

Manipuri name - Chigong lei

Bengali name - Guyababula

Marathi name - Gukikar

Telugu name - Nagatumma

Tamil name - Kadivel, Kasthurivel,

Assamese name - Tarua kadam



Irimeda is a small tree growing upto a height of 6 - 8 meters in the dry regions of India like Rajasthan, Madhya Pradesh and Maharashtra. The plant bears small, fragrant yellow flowers

**Sanskrit Synonyms:**

Arimeda, Raamaka, Sarvameda, Skandha, Ahimeda, Arima, Medoripu, Ahimeda, Ahimara, Pootimeda, Kalaskandha

Safed Babul - Resembles Babul plant (*Acacia Arabica* Wild.)

Vitkadhir - Like plant of Khadira (*Acacia cathechu* Wild.) but with foul smelling roots.

**Properties**

Rasa (Taste) - Kashaya - Astringent, Tikta - Bitter

Guna (Qualities) - Laghu - Light for digestion, Ruksha - Dry in nature

Vipaka - Katu - Pungent after digestion

Veerya (Potency) - Sheeta - Cold

**Effect on Tridosha** - Irameda is kapha pitta shamaka (reduces the vitiated kapha and pitta dosha)



**Major chemical constituents:**

The rootbark of the plant *Acacia farnesina* Wild. contain leucophleol, leucoxol and leucophleoxol. The plant also contains Aromadendrin, Naringenin, Galloylglucose, Ethyl Gallate as the other chemical constituent. (Dravya Guna Vijnana by JLN Shastry)

Bark is rich in tannins.

Leaves are used as Chutney along with tamarind.

In Europe, a perfume derived from its flowers - Cassie is used.



**Part Used:** Stem, Bark, Heart - Wood

**Dosage:** 40 - 50 ml of decoction in divided doses

Paste of the bark for external application in treating inflammation

**Uses of the plant Irimeda:**

- The decoction of the plant *Acacia farnesina* Wild. is used for gargling in the diseases related to oral cavity like dental caries, inflamed and infected gums.
- The decoction of the bark of the plant Irimeda in a divided dose of 40 - 50 ml is consumed in treating diarrhea.
- The paste prepared from the powder of the heart wood is applied to treat localized inflammation, pain due to insect bite.
- The decoction of the plant is also used in divided dose of 40 - 50 ml to treat cough.

- The leaves of the plant *Acacia farnesina* Wild. is used to treat syphilitic ulcers and is anti - bacterial in nature.
- The extract of the aerial parts of the plant *Acacia farnesina* Wild. is hypotensive and central nervous system depressant in nature.
- The paste of the seeds of *Irimeda* is used to control bleeding from wounds.
- An alcoholic preparation called as 'Arishta' is prepared from the plant *Irimeda* to treat distention of the abdomen. It is given in a dose of 90 - 100 ml per day in divided dose.

इरिमेदः सर्वमेदोगन्धा स्कन्धोऽहिमेदकः ।

अरिमेदो विट्खदिरोऽरिमो मेदो रिपू रिसः ॥

रिमः कटुः कषायोष्णस्तीक्ष्णो हन्ति कफं कृमीन् ।

कण्डूरक्तग्रहान् वस्तिमुखदन्तगदानपि ॥

तत्फलं तिक्तमधुरं स्निग्धोष्णं कफवातनुत् । कैयदेवनिघण्टु - ओषधिवर्ग

इरिमेदोऽरिमेदश्च गोधास्कन्धोऽरिमेदकः ।

अहिमेदोऽहिमारश्च पूतिमेदोऽहिमारकः ।

मुखरोगहरः शीतो रक्तामस्तम्भकारकः ॥ धन्वन्तरिनिघण्टु - आम्रादिवर्ग

इरिमेदो विट्खदिरः कालस्कन्धोऽरिमेदकः ।



इरिमेदः कषायोष्णो मुखदन्तगदाऽस्रजित् ।

हन्ति कण्डूविषक्षेष्मकृमिकुष्ठविषव्रणान् ॥ भावप्रकाश - वटादिवर्ग

इरिमेदोऽरिमेदश्च गोधास्कन्धोऽरिमेदकः ।

अहिमेदोऽहिमारश्च पूतिमेदोऽहिमेदकः ॥

अरिमेदः कषायोष्णस्तिको भूतविनाशकः ।

शोफातिसारकासघ्नो विषवीसर्पनाशनः ॥ राजनिघण्टु -

शाल्मल्यादिवर्ग

irimedah sarvamedogandhā skandho'himedakah |

arimedo viṭkhadīro'rīmo medo ripū risah ||

rimah kaṭuḥ kaṣāyoṣṇastīkṣṇo hanti kaphaṃ kṛmīn |

kaṇḍūraktagrahān vastimukhadantagadānapi ||

tatphalaṃ tiktamadhuraṃ snigdhoṣṇaṃ kaphavātanut |

kaiyadevanighaṇṭu - oṣadhivarga

irimedo'rīmedaśca godhāskandho'rīmedakah |

ahimedo'himāraśca pūtimedo'himārakah |

mukharogaharah śīto raktāmastambhakārakah ||

dhanvantarinighaṇṭu - āmrādivarga

irimedo viṭkhadīrah kālaskandho'rīmedakah |

irimedah kaṣāyoṣṇo mukhadantagadā'srajit |

hanti kaṇḍūviṣaśleṣmakṛmikuṣṭhaviṣavraṇān || bhāvaprakāśa -

vaṭādivarga

irimedo'rimedaśca godhāskandho'rimedakaḥ |  
ahimedo'himāraśca pūtimedo'himedakaḥ ||  
arimedaḥ kaṣāyoṣṇastikto bhūtavinaśakaḥ |  
śophātisāarakāsaghno viṣavīsarpanāśanaḥ || rājanighaṇṭu -  
śālmalyādivarga

### **Traditional indications:**

Kaphaja Krumi - worm infestation of Kapha origin

Kandu - itching, pruritis

Raktadosha - blood impurity and vitiation disorders such as  
acne, skin diseases, bleeding disorders etc

Basti Dosha - Urinary tract disorders

Mukha Dosha, Danta Dosha - diseases of mouth and teeth.

Useful in treating mouth ulcers, to stop and reverse tooth  
decay. For this reason, it is used as ingredient in Irimedadi taila  
- an oil for oil pulling to treat dental and mouth disorders and  
in [Geecare dentrifice](#)

Raktastambhaka - useful in bleeding disorders.

Visha - Toxic conditions, poisoning

Kushta - skin diseases

Bhutahara - useful in psychiatric disorders

Graharoga - Psychiatric disorders

Shopha - inflammation

Atisara - diarrhoea, dysentery

Kasa - cough, cold

Visarpa - herpes

Fruit is bitter, sweet, Snigdha - unctuous, oily, Ushna - hot

Balances Kapha and Vata Dosha

### **Formulation containing Irimesa:**

**Arimesadi Tailam** - This oil is used for gargling or oil pulling to strengthen the tooth, treat tooth decay, foul breath.

**Khadiradi vati** - It is a tablet used to treat oral ulcers, bad breath, and cough. The tablet is kept in the mouth and sucked slowly to get the proper benefit.

### **Research articles on Acacia farnesina Wild.**

- The water extract of the herb Acacia farnesiana significantly **lowered the blood glucose level**.
- The presence of phenols, steroid, tannins, flavanoids in the herb irimesa **exhibit anti microbial activity**.
- The pod extract of the plant showed **anti oxidant activity** in experimental study.
- The leaf extract of the plant Acacia farnesiana showed **anti microbial and cyto toxic activity**.

### **Classical categorization:**

#### **Charaka Samhita**

Udara Prashamana group of herbs useful in treating tinea infection

Sanjasthapana - group of herbs useful in restoring consciousness.

Raja Nighantu: Shalmalyadi Varga

Bhavaprakasha: Vatadi Varga

Dhanvantari Nighantu: Amradi Varga

Kaiyadeva Nighantu: Oshadhi Varga

### **Systemic classification**

Kingdom: Plantae

Phylum: Spermatophyta

Sub Phylum: Angiospermae

Class: Dicotyledonae

## 5. Indian Senna: *Cassia angustifolia* Uses, Dose, Research, Side Effects

Markandika: *Cassia angustifolia* is an Ayurvedic herb more popularly known as Senna. It is mainly used as a blood purifier, laxative - for relieving constipation and to treat skin diseases. It is also known as Swarnapatri in Sanskrit.

**Botanical Name** - *Cassia angustifolia* Vahl.

Family - Caesalpiniaceae

### **Names in different languages:**

English - Indian Senna

Hindi - Senai

Kannada - Nelavarike

Tamil - Nilavirai

Telugu - Nelatagedu

Malayalam - Nilavilakku



The plant Senna is a native to Sudan country but Senna is an Arabian name. The plant was brought into use by Arabian physicians for removing capillary congestion. It is a small herb

growing to a height of 2 - 3 feet. The leaves are collected and dried before usage. It is cultivated in Tamil Nadu and certain parts of dry regions of Andhra Pradesh and Karnataka.

Cassia acutifolia Delile is also equated with Senna but the leaves of this plant is comparatively smaller than Cassia angustifolia

### **Senna - medicinal Properties**

Rasa (Taste) - Katu - Pungent, Tikta - Bitter, Madhura - Sweet

Veerya (Potency) - Ushna - Hot

Guna (Qualities) - Laghu - light to digest, Rooksha - Dry in nature, Teekshna - Pungent

Vipaka - Katu - After digestion it undergoes into pungent taste

Prabhava (Special effects) - Sukha Virechaka - Acts like a mild purgative

Effect on Tridosha - The herb is Pitta shodhaka (removes excessive Pitta from body) and Vata anulomaka (Removes Vata through the anal route)

### **Part used -**

Dried leaves which are golden brown in color after drying.

The pod and root of the plant Cassia angustifolia is also used.



### **Chemical Composition:**

Most of the Senna species contain rhein, aloë - emodin, kaempferol, isormannetin, both free and as glucosides, together with myricic alcohol. The purgative principles are largely attributed to anthraquinone derivatives and their glucosides present in the leaves. The sennosides present in the plant senna acts on the motility of the colon by inhibiting stationary and stimulating propulsive contractions. Apart from these, senna plant also contains mannitol, chrysophenol, salicylic acid, calcium oxalate and volatile oils.

### **Dosage:**

500 mg to 2 g of the powder of leaf or pod.



### **Uses of Indian Senna:**

- The dried leaf of Indian Senna is used as a purgative. The powder of the leaf is taken in a dosage of 1 - 2 g with hot water in conditions of constipation, abdominal distention.
- In skin diseases, the paste of the leaf of *Cassia angustifolia* is applied along with vinegar to the affected part of the body.
- In disease of abdominal worm infestation, rheumatoid arthritis, gout, the powder of Senna leaf is given in a dosage of 1 - 2 g to induce purgation.
- Ayurveda has advised Virechana (purgation therapy) in the conditions of Hepatomegaly, Splenomegaly and Jaundice to relieve excessive Pitta from the body using the dried leaf or pod of Senna plant.
- Senna leaf or pod, in dried form stimulates the liver for production of Pitta.
- The leaf of Senna is a blood purifier. It is given daily in a dosage of 500 mg.



Precaution:

- In case a lactating woman takes Senna leaf, it will induce mild purgation in the breast feeding infant.
- The usage of Senna is contraindicated in people suffering from inflammatory colon diseases, severe dysentery.
- Increased dosage of Senna will lead to severe purgation, abdominal cramps and features of dehydration.
- People may suffer from nausea, excessive salivation, increased thirst and dehydration related features after the use of Senna. It is advised to use Senna along with sugar candy, ginger powder, rock salt to minimize the above said conditions.

अपरा भूपेठिरिका मार्कण्डि मृदुरेचनी ।

मार्कण्डिका जयेत् कुष्ठमूर्ध्वाधः कायशोधनी ॥

विषदुर्गन्धकासघ्नी गुल्मोदरविनाशनी ।

तन्मूलं तु सरं रक्तपित्ततृणमोहनाशनम् ॥

स्वादु पाकेऽनिलहरं गुरु शुक्रक्षयापहम् ।

कृमिकुष्ठप्लीहहरं दीपनं वर्णकृत् परम् ॥ कैयदेवनिघण्टु ओषधिवर्ग

मार्कण्डिका भूमिवल्ली मार्कण्डी मृदुरेचनी ।

मार्कण्डिका कुष्ठहरी ऊर्ध्वाधःकायशोधिनी ।

विषदुर्गन्धकासघ्नी गुल्मोदरविनाशिनी ॥ भावप्रकाश - गुडूच्यादिवर्ग

aparā bhūpeṭhirikā mārkaṇḍi mṛdurecanī |  
mārkaṇḍikā jayet kuṣṭhamūrdhvādhaḥ kāyaśodhanī ||  
viṣadurgandhakāsaghnī gulmodaravināśanī |  
tanmūlaṃ tu saraṃ raktapittatrṇmohanāśanam ||  
svādu pāke'nilaharaṃ guru śukrakṣayāpaham |  
kṛmikūṣṭhaplīharaṃ dīpanaṃ varṇakṛt param ||  
kaiyadevanighaṇṭu oṣadhivarga  
mārkaṇḍikā bhūmivallī mārkaṇḍi mṛdurecanī |  
mārkaṇḍikā kuṣṭhaharī ūrdhvādhaḥkāyaśodhinī |  
viṣadurgandhakāsaghnī gulmodaravināśinī || bhāvaprakāśa -  
guḍūcyādivarga

### **Traditional indications:**

Urdhva Adha Kaya Shodhini - detoxifies and purifies both through oral and rectal routes, useful both in Vamana and Virechana.

### **Indications:**

Visha - Toxic conditions,

Durgandha kasa - cough

Gulma - Tumors of the abdomen

Udara - ascites, enlargement of the abdomen

### **Root -**

Sara - induces mobility, causes diarrhea, purgation, relieves constipation

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Trushna - excessive thirst

Moha - delusion

Shukrakshaya - depleted semen, sperm count

Swadu Vipaka (taste conversion after digestion) - sweet taste

Balances Vata Dosha

Guru - heavy to digest

### **Important formulations containing Senna:**

**Sarivadyasava** - It is an ayurvedic liquid medicine used to treat skin diseases, gout, and diabetes.

**Ayulax** - It is an ayurvedic proprietary medicine used to treat constipation, distention of abdomen.

**Kultab tablet** - It is a medicine used to treat piles and hemorrhoids.

**Pylend tablet** - It is a tablet used to treat piles, constipation.

**Raktansoo syrup** - An ayurvedic proprietary medicine used as blood purifier.

### **Research articles related to Cassia angustifolia:**

The extracts of Cassia angustifolia showed **anti - microbial activity**.

A study was undertaken to evaluate antimicrobial activities of different extracts (ethanol, methanol, petroleum ether and aqueous solutions) of Cassia angustifolia plant. Antimicrobial

efficacy of various extracts was assessed by disc diffusion method against Gram positive bacteria - *Staphylococcus aureus* (MTCC 3160), Gram negative - *Escherichia coli* (MTCC 1652) and *Pseudomonas aeruginosa* (MTCC 647) and fungi - *Aspergillus niger* (MTCC282), *Aspergillus flavus* (MTCC 2456), *Fusarium oxisporum*(MTCC349) and *Rhizopus stolonifer* (MTCC 2591). The ethanol extract exhibited highest zone of inhibition against *P. aeruginosa* ( $22.4\pm 0.86\text{mm}$ ) with low MIC value (14.8 mg/ml). Phytochemical screening of the extract showed the presence of alkaloids, flavonoids, carbohydrates, proteins, tannins and triterpenoids in *cassia angustifolia*.

the main active constituent of Senna, is responsible for its laxative property.

Senna plant act as anti - fungal agent and **act against D.N.A of E.Coli bacteria.**

Senna contains sennosides, which are active components that affect the intestinal tract and induce diarrhea. Research has shown that senna produces DNA (deoxyribonucleic acid) lesions in *Escherichia coli* cultures and can act as an antifungal agent. Natural drugs can alter the labeling of blood constituents with technetium - 99m ( $^{99\text{m}}\text{Tc}$ ) and can affect the biodistribution of radiopharmaceuticals. In this work, they have evaluated the influence of a senna extract on the radiolabeling of blood constituents and on the biodistribution of the

radiopharmaceutical sodium pertechnetate ( $\text{Na}^{99\text{m}}\text{TcO}_4$ ) in *Wistar* rats. The senna extract did not modify the radiolabeling of the blood constituents. A biodistributional assay was performed by administering  $\text{Na}^{99\text{m}}\text{TcO}_4$  and determining its activity in different organs and in blood. The senna extract altered the biodistribution of  $\text{Na}^{99\text{m}}\text{TcO}_4$  in the thyroid, liver, pancreas, lungs and blood. These results are associated with properties of the chemical substances present in the aqueous senna extract. Although these assays were performed in animals, our findings suggest that caution should be exercised when nuclear medicine examinations using  $\text{Na}^{99\text{m}}\text{TcO}_4$  are conducted in patients who are using senna extract.

- The **Senna seed gum acts as natural coagulant** for decolorisation of dye solutions.
- **Mechanical drying** of Senna leaves enhances the active constituent, sennoside, to enhance its action.

### **Classical categorization:**

The ancient ayurvedic texts have not mentioned the plant markandika (*Cassia angustifolia*).

Bhavaprakasha - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

### **Sanskrit Synonyms -**

Suvarna patri - Leaves are of golden color after drying

Rechani - Cause virechana (purgation)  
Bhupetirika, Bhumivalli.

## **6. Babool Tree Uses, Dose, Side Effects, Ayurvedic Medicines**

Babool tree or Babbula - *Acacia nilotica* Linn. is an ayurvedic herb used in the treatment of skin diseases, dhat syndrome, bleeding disorders and to treat intestinal worms.

Botanical Name - *Acacia nilotica* Linn. *Acacia arabica*, *Vachellia nilotica*

Family - Leguminosae

### **Names in different languages:**

English name - Babul, Indian gum Arabic tree

Hindi name - Babbul, Keekar

Bengali name - Baabla

Kannada name - Jaali Mara

Tamil name - Karuvel

Telugu name - Nallatumma



Babbula is a small tree growing to a height of up to 8 - 10 m containing small spikes. This tree is found in the dry regions of whole of India.

## **Sanskrit Synonyms of Babul Tree**

Yugmakanta - Two spikes are seen together

Dridaruha - The stem and branches of the plant are strong

Sookshma patra - The leaves are small in appearance

Malaphala - The fruit pods resemble a chain

Kantaki - has spikes,

Sapeetaka, Peetapushpa - yellow flowers

Kashayakaha - natural astringent

Kinkirata

## **Acacia arabica medicinal Properties:**

Rasa (taste) - Kashaya - Astringent

Veerya - Sheeta - Coolant

Guna (qualities) - Guru - Heavy to digest, Rooksha - Dry in nature

Vipaka - Katu - Undergoes pungent taste conversion after digestion

Karma - Kapha Hara - Balances Kapha Dosha.

**Babbula plant - part used** - Stem bark, fruit, gum, seeds.

The Niryasa (Gum resin) is Pitta - Vatahara (reduces pitta and vata dosha). It helps in reducing the swelling of the uterus.

The stem bark and the pods act against the intestinal worms and help in coagulation of the blood.



## **Major chemical Constituents:**

The bark and pods contains 12 - 20% of tannin. Several polyphenolic compounds have been reported from the bark and pods of the plant *Acacia nilotica*. The gum resin of the plant contains galactose, aldobio uronic acid and arabinobioses. It also contains about 52% of calcium and 20% of magnesium. The flowers contain flavonoids - kaempferol - 3 - glucoside, iso - quercitrin and leucocyanidin.

## **Dose:**

20 - 30 g for decoction, 50 - 100 ml of Decoction per day, in divided doses.

3 - 6 g of seed powder

Acacia gum - 2 - 3 grams per day.

## **Uses of *Acacia nilotica*:**

- The paste of the bark of the plant *Acacia nilotica* is applied over oozing eczemas.
- The powder of the dried leaves is sprinkled over fresh wounds to control bleeding.
- In case of rectal prolapse, the patient is advised sitz bath over the decoction prepared from the bark of the Indian Babbul plant.
- The decoction prepared from the bark of the plant *Acacia nilotica* is used for gargling in the diseases of mouth ulcer and bleeding gums.

- The paste from the leaves of the plant is applied over wound and injury caused due to contact with fire.
- The decoction of the plant is given in a dosage of 40 - 50 ml to treat diarrhea and to treat intestinal worms.
- The decoction prepared from the pods of the plant Babool is used to treat excessive bleeding during menstruation.
- The decoction of the pods and bark, in a dosage of 45 - 50 ml is given to treat bleeding piles and hemorrhoids.
- The leaves are crushed - 2 - 3 grams, and consumed along with a teaspoon of sugar, once or two times a day, for the treatment of spermatorrhoea / Dhat syndrome or nightfall.

### **Babool for arthritis:**

Babool gum powder - 3 grams is added to a cup of water, heated for 2 - 3 minutes and consumed once a day. This is useful in relieving arthritis. This can be continued for 1 month time.

मालाफलोऽथ बब्बूलो युग्मकण्टो दृढारुहः ।

कण्टकी सूक्ष्मपत्रश्च पीतपुष्पः कषायकः ॥

बब्बूलस्तु कषायोष्णः कफकासामयापहः ।

आमरक्तातिसारघ्नः पित्तदाहार्तिनाशनः ॥

बब्बूलस्य फलं रूक्षं विशदं स्तम्भनं गुरु । कैयदेवनिघण्टु - ओषधिवर्ग

बब्बूलः किङ्किरातः स्यात्किङ्किराटः सपीतकः ।

स एव कथितस्तज्जैराभाषट्प्रदमोदिनी ।

बब्बूलः कफनुद् ग्राही कुष्ठक्रिमिविषापहः ॥ भावप्रकाश वटादिवर्ग

बब्बूलो व्रणकर्णास्यनाडीघ्नः कफहृत्सरः ॥

कुष्ठघ्नश्च फलं तस्य भेदनं कृमिनाशनम् । सोढलनिघण्टु आम्रादिवर्ग

mālāphalo'tha babbūlo yugmakaṇṭho dr̥ḍhāruhaḥ ।

kaṇṭakī sūkṣmapatraśca pītapuṣpaḥ kaṣāyakaḥ ॥

babbūlastu kaṣāyoṣṇaḥ kaphakāsāmayāpahaḥ ।

āmaraktātisāraghnaḥ pittadāhārtināśanaḥ ॥

babbūlasya phalaṃ rūkṣaṃ viśadaṃ stambhanaṃ guru ।

kaiyadevanighaṇṭu - oṣadhivarga

babbūlaḥ kiṅkirātaḥ syātkiṅkirāṭaḥ sapītakaḥ ।

sa eva kathitastajjñairābhāṣaṭpradamodinī ।

babbūlaḥ kaphanud grāhī kuṣṭhakrimiviṣāpahaḥ ॥

bhāvaprakāśa vaṭādivarga

babbūlo vraṇakarṇāsyanaḍīghnaḥ kaphahr̥tsaraḥ ॥

kuṣṭhaghnaśca phalaṃ tasya bhedanaṃ kṛmināśanam ।

soḍhalanighaṇṭu āmrādivarga

### **Traditional indications of Babbul plant:**

Kaphaja Kasa - cough, cold with sputum and heaviness, due to  
Kapha Dosha

Ama - A product of indigestion and altered metabolism

Raktatisara - diarrhea with bleeding, as in ulcerative colitis  
Pittahara - useful in Pitta imbalance disorders such as gastritis, burning sensation, etc.

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Arti - relieves pain

Kushta - skin diseases

Krimi - worm infestation

Visha - Toxic conditions, poisoning

Vrana - Ulcers, wounds

Karnaroga - ear disorders with discharge

Asya roga - mouth ulcers

Nadivrana - sinuses

Sara - induces mobility, causes diarrhea, purgation, relieves constipation

Babbul fruit is -

Rooksha - dryness

Vishada - has clarity

Stambhana - blocks the channel, useful in diarrhea, bleeding disorders

Guru - heavy to digest

### **Ayurvedic medicines containing Babul tree:**

**Dasanakanti churnam** - It is an herbal toothpowder used for strengthening of the gums and tooth.

**Trayodashang guggulu** - It is an ayurvedic tablet used for low back ache, sciatica, arthritic pain, locked jaw.

**Pepcer capsule** - It is a capsule used to treat peptic ulcer, gastritis, heart burn condition.

**Khadiradi gutika** - The decoction of babbula plant bark is used in binding the powders used to prepare khadiradi tablet, which is used to treat cough.

### **Research articles on Babool tree:**

**Multiple health benefits:** Different parts of this plant such as the leaves, roots, seeds, bark, fruits, flowers, gum and immature pods act as anti - cancer, antimutagenic, spasmogenic, vasoconstrictor, anti - pyretic, anti - asthamatic, cytotoxic, anti - diabetic, anti - platelet agregatory, anti - plasmodial, molluscicidal, anti - fungal, inhibitory activity against Hepatitis C virus (HCV) and human immunodeficiency virus (HIV) - I and antioxidant activities, anti - bacterial, antihypertensive and anti - spasmodic activities, and are also engaged for the treatment of different ailments in the indigenous system of medicine.

**Anti - cancer activity:** The outcome of the animal study indicates that Acacia nilotica extract could be used as natural anticancer agent for human health.

**Anti - microbial and anti oxidant:** The study suggest that the phytochemical properties of the herb possess potential antimicrobial, antioxidant property.

**Anti - fungal activity:** The bark of the plant showed anti - fungal activity on in vitro study. It proved its action on candida albicans.

#### **Medicinal attributes of Acacia nilotica:**

- **Antimicrobial activity:** O. Solomon - Wisdom et al (2010) has investigated in vitro antimicrobial activity of the crude ethanolic leaf extract of Acacia nilotica Linn. against Campylobacter coli isolated from goats.
- **Anti - bacterial activity:** Mahesh et al (2008) has observed antibacterial activity study of methanolic extracts of Acacia nilotica, showed highest antibacterial activity against B. subtilis. and Staphylococcus aureus.
- **Anti - malarial activity:** The root extracts of A. nilotica was active against Plasmodium berghei and Plasmodium falciparum in mice (42). In vitro Antimalarial activity against CQ sensitive (3D7) and CQ - resistant (Dd2 and INDO) strains of P. falciparum in culture using the fluorescence - based SYBR. A. nilotica was reported with significant activity and IC50 was found as 13µg/mL.

- **Anti - helminthic activity:** In vitro methanolic extract of Acacia nilotica fruit exhibit anthelmintic activity against Haemonchus contortus.

**Classical categorization:**

Kaiyyadeva Nighantu - Oushadhi varga

Shodala Nighantu - Amradi varga

Bhava Prakasha - Vatadi varga

**Side effects:**

There are no known side effects with this medicine.

It is best to avoid this herb during constipation.

## **7. Touch Me Not Plant: Uses, Side Effects, Research**

Lajjalu *Mimosa pudica* Linn. is a small plant which is used mainly in the treatment of wounds, piles, uterine prolapse, diarrhea.

Botanical name - *Mimosa pudica* Linn.

Family - Leguminosae



### **Names in different languages:**

English name - Sensitive plant

Hindi name - lajalu, chui mui

Bengali name - Lajjavati

Kannada name - Nachike mullu, Nachike Gida

Gujarati name - Reesamani

Tamil name - Tottalavadi





### **Varieties:**

There are about 4000 species of mimosa. *Mimosa pudica* is a small herb which grows like a weed in a short period of time. It is a native of Brazil but now found all over India in the temperate climate. The leaves are arranged symmetrically and close on touch; hence the name sensitive plant. The flowers are pink in color.



## **Touch me not plant - medicinal properties**

Rasa (taste) - Kashaya - Astringent, Tikta - Bitter

Guna (qualities) - Laghu - Light to digest, Rooksha - Dryness

Vipaka - Katu - Undergoes pungent taste conversion after digestion

Veerya - Sheeta - Coolant

Karma - Kapha - pitta hara (reduces the vitiated Kapha and Pitta Dosha)

**Part used** - Root, whole plant.

Paste of the plant is used (as poultice) for external use.



### **Chemical composition:**

The plant contains mimosine and turgorin. The periodic leaf movements exhibited by the plant are due to presence of derivatives of 4 - O - gallic acid. The aerial part of the plant Mimosa pudica contains C - glycosylflavones, 2 -

Orhamnosylorientin. The root of the plant contains 10% tannin and 55% ash. The seed contains mucilage.



### **Dosage -**

Fresh juice 10 - 20 ml

Decoction: 50 - 100 ml, in divided doses, per day.

नमस्करी रक्तपाद समङ्गाऽञ्जलिकारिका ।

समपत्रा रक्तमूला रुहा खदिरिकारुणा ॥

लज्जालुः स्यात् स्पृहा स्पृक्का गन्धकारी प्ररोचनी ।

नमस्करी हिमा तित्ता कषाया कफपित्तहा ॥

योनिरोगमतीसारं रक्तपित्तं च नाशयेत् । कैयदेवनिघण्टु - ओषधिवर्ग

लज्जालुः स्याच्छमीपत्रा समङ्गा जलकारिका ।

रक्तपादी नमस्कारी नाम्ना खदिरकेत्यपि ॥

लज्जालुः शीतला तिक्ता कषाया कफपित्तजित् ।

रक्तपित्तमतीसारं योनिरोगान् विनाशयेत् ॥ भावप्रकाश - गुडूच्यादिवर्ग

रक्तपादी शमीपत्रा स्पृक्का खदिरपत्रिका ।

सङ्कोचनी समङ्गा च नमस्कारी प्रसारिणी ॥

लज्जालुः सप्तपर्णी स्यात् खदिरी गण्डमालिका ।

लज्जा च लज्जिका चैव स्पर्शलज्जाऽस्ररोधिनी ॥

रक्तमूला ताम्रमूला स्वगुप्ताऽञ्जलिकारिका ।

नाम्ना विंशतिरित्युक्ता लज्जायास्तु भिषग्वरैः ॥

रक्तपादी कटुः शीता पितातीसारनाशनी ।

शोफदाहश्रमश्वासव्रणकुष्ठकफास्रनुत् ॥ राजनिघण्टु पर्पटादिवर्ग

namaskarī raktapāda samaṅgā'ñjalikārikā |

samapatrā raktamūlā ruhā khadirikāruṇā ||

lajjāluḥ syāt sprhā sprkkā gandhakārī prarocanī |

namaskarī himā tiktā kaṣāyā kaphapittahā ||

yonirogamatisāraṃ raktapittaṃ ca nāśayet |

kaiyadevanighaṇṭu - oṣadhivarga

lajjāluḥ syācchamīpatrā samaṅgā jalakārikā |

raktapādī namaskārī nāmnā khadiraketyapi ||  
lajjāluḥ śītalā tiktā kaṣāyā kaphapittajit |  
raktapittamatisāraṃ yonirogān vināśayet || bhāvaprakāśa -  
guḍūcyādivarga

raktapādī śamīpatrā sprḥkā khadirapatrikā |  
saṅkocanī samaṅgā ca namaskārī prasāriṇī ||  
lajjāluḥ saptaparṇī syāt khadirī gaṇḍamālikā |  
lajjā ca lajjikā caiva sparśalajjā'srarodhinī ||  
raktamūlā tāmramūlā svaguptā'ñjalikārikā |  
nāmnā viṃśatirityuktā lajjāyāstu bhiṣagvaraiḥ ||  
raktapādī kaṭuḥ śītā pittātīsāranāśanī |  
śophadāhaśramaśvāsavraṇakuṣṭhakaphāśranut ||  
rājanighaṇṭu parpaṭādivarga

### **Traditional indications:**

Yoniroga - useful in female reproductive system related disorders such as heavy periods

Atisara - diarrhoea, dysentery

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Pittatisara - diarrhea due to excess Pitta, ulcerative colitis

Shopha - inflammation

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Shrama - tiredness, fatigue

Shwasa - asthma and chronic respiratory disorders

Vrana - Ulcers, wounds

Kushta - skin diseases

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

### **Uses of Lajjalu:**

- The decoction of the root in a dose of 45 - 50 ml is taken to get relief from renal stones, urinary complaints and asthma.
- The decoction of the plant Mimosa pudica is consumed in a dose a divided dosage of 10 - 15 ml thrice a day get relief from diarrhea, bleeding piles, diabetes.
- The paste of the plant is applied over fresh wounds to stop bleeding, to treat skin diseases.
- The paste of the plant is applied as poultice, over the affected area, to relive vaginal prolapse, anal prolapse.
- The powder of the seed is given in a dose of 4 - 6 g in lower sperm count.
- The paste of the leaves of the Mimosa pudica plant is applied to treat fractures of the bone.

### **Important formulations containing Lajjalu:**

**Kutaja avaleha:** It is a type of semisolid preparation used in the

treatment of piles, **ulcerative colitis**, diarrhoea, IBS, anemia, bleeding disorders, gastritis, inflammatory conditions.

**Ural BPH capsule:** It is a capsule used for the treatment of Benign Prostatic Hyperplasia.

**Selip syrup and tablet:** This formulation is used in the treatment of piles, constipation, and anal fistula

**Samangadi churna:** Samangadi Churna is an Ayurvedic medicine, in herbal powder form. It is used in the treatment of bleeding hemorrhoids.

**Palsinuron capsule:** This capsule is used in the treatment of cervical spondylitis, brachial neuralgia, paralysis.

**Lakshadi churna:** Lakshadi Churnam is an Ayurvedic powder medicine used in the treatment of nasal bleeding, heavy periods and other bleeding disorders. It is best avoided in delayed periods, less menstrual bleeding (oligomenorrhoea).

**Pilocure tablet:** It is a tablet used for the treatment of bleeding piles and hemorrhoids.

### **Research articles related to Mimosa pudica:**

- **Anti microbial activity:** The antimicrobial activity of Lawsonia inermis, Mimosa pudica, Cestrum diurnum and Solanum xanthocarpum was determined by agar disc diffusion method against five strains of microbes: Bacillus pumilus, Micrococcus luteus, Escherichia coli, Pseudomonas aeruginosa and Candida albicans. All the selected plants exhibited

antimicrobial activity but the degree of their potency varied. The results showed that *Cestrum diurnum* and *Mimosa pudica* showed more antimicrobial activity as compared to *Lawsonia inermis* and *Solanum xanthocarpum*.

- **Broad spectrum anti microbial activity:** Antimicrobial activities of 50% methanolic crude extracts of *Mimosa pudica* L were evaluated against different bacterial strains (*E.coli* MTCC - 443, *Pseudomonas aeruginosa* MTCC - 4673, *Staphylococcus aureus* MTCC - 3160, *Bacillus subtilis* MTCC - 441, *Streptococcus pyogenes* MTCC - 1926.) by agar well diffusion method & MIC determination. The crude extract showed a broad spectrum of antibacterial activities by inhibiting the respective bacteria in Agar well diffusion assay.
- **Adaptogenic and nootropic activity:** Ethanolic extract of *pudica* at the dose of 500 mg/kg produces potential changes in chronic Alzheimer's model and stress.
- **Ethno medical and traditional use of *Mimosa pudica*:** Recent studies have found that the extracts of this plant can be used for controlling child birth. Traditional herbal doctors recommended this plant for the treatment of bronchitis, general debility and impotence.

### ***Mimosa pudica* side effects:**

It is best to avoid during constipation and scanty periods.



## **Classical categorization:**

Charaka Samhita -

Sandhaniya - Group of herbs useful in quick wound / fracture healing

Purisha sangrahaneeya - Group of herbs that increase the bulk of feces

Sushruta - Priyanguvadi gana, Ambashtadi gana

Vagbhata - Priyanguvadi gana

Bhavaprakasha - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadi varga

Raja Nighantu - Parpatadi varga

## **Sanskrit Synonyms:**

Lajjalu - Sensitive plant and leaves close on touch

Samanga - The plant is symmetrical

Sankochani, Namaskari - The leaves fold like folding of hand on touch.

Khadira patrika - Resembles the leaf of Khadira (Acacia cathechu) plant.

Raktapada, Raktamoola, Tamramoola - Coppery red colored root

Gandhakari - Has an aroma

Khadirakaruna,

Prarochani - improves taste, relieves anorexia.

Shamipatra - leaves resemble to those of Shami plant.

Jalakarika

Prasarini - grows and spreads quickly

## **8. Benefits, Ayurvedic Remedies Of Rose Plant And Essential Oil**

Rose - *Rosa indica* Linn is commonly known as Indian cabbage rose. It is a plant which is abundantly cultivated throughout the world for its cosmetic value and medicinal purpose. It is medicinally used for blood purification, treatment of the intestinal ulcer, diarrhea and anti-inflammatory action. In India about 150 original varieties and more than 2500 hybrid varieties of roses are found.

**Botanical name** - *Rosa indica* (*Rosa centifolia*)

**Family** - Rosaceae

Indian rose is commonly found and also cultivated plant throughout cold and temperate climatic part of India. It grows to a height of 1.5 - 2 m with spikes. It is cultivated for its fragrant flowers which are used commercially. But the medicinal properties are found in the original variety of rose than in the hybrid cultivated variety.

### **Rose: medicinal properties**

Guna - Laghu (Light), Snigdha (slimy)

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent), Madhura (Sweet)

Vipaka - Madhura (Sweet after digestion)

Veerya (Potency) - Sita (Cold)

Karma - Tridosahara (pacifies all the dosha), Hrdya

(Strengthens the heart), Sukrala (helps in increasing the potency), Pachana (Help in digestion)



**Part used:**

Fresh or dried flower petals

**Chemical composition rose plant:**

The flowers and leaves contain 1.3% and 8.5% of saponin respectively. Petals contain methionine sulphoxide. The volatile oil from the flowers contains citronellol, geraniol, nerol, phenylethanol. It also contains 15% tannins.

The whole plant yield quercetin, kaempferol and cyaniding. The rose hip contains vitamin C, malic acid and citric acid.



**Dosage:**

Powder - 3 to 6 g

Distillate - According to the necessity

Distillate from flower - 20 to 30 ml



## **Medicinal uses of rose:**

- The paste of the rose petals or the powder of the dried petals is applied over the wounds for quicker healing.
- The paste of the petals is applied over the body to control excessive sweating and to give a pleasant smell.
- The extract of the rose petals is used as drops or eye wash in burning sensation of the eyes.
- The dried paste of the petals of rose is taken internally in a dose of 5g along with milk to treat gastritis and duodenal ulcer.
- The decoction prepared from the rose buds in a dosage of 20 - 30ml in divided doses is used to treat constipation.
- Rosehip tincture is an effective astringent for treating diarrhea or in relieving colic or as a component in cough remedies.
- A gargle made from petal infusion of rose is used for sore throats.
- Creams from the essential oil of rose are used to treat dry or inflamed skin.
- The dried hips of the wild rose are especially high in vitamin C, having three times that of citrus fruits, and have long been used to prevent scurvy.

- Herbal tea prepared using rose petals is consumed to treat acidity, burning sensation in the body, dryness of the oral cavity and effective against infection in the intestine.
- **Rose essential oil** is used in aromatherapy to treat insomnia and blood pressure.
- The rose extract or oil is used extensively in the cosmetic industry as an ingredient of soap, body wash, perfumes, body spray etc.

कर्णिका रामतरुणी तरुणी चारुकेशरा ।

कण्टकप्रावृता धीरा नीलालिकुलसङ्कुला ।

अपरा भद्रतरुणी बृहत्पुष्पातिकेशरा ।

कुपप्र कुञ्जकी वल्ली कुमारी कर्णिकापरा ॥

महासहा कण्टकाख्या पङ्कारो जलकुब्जकः ।

महाकुमारी गन्धाढ्या तत्पुष्पं भष मुच्यते ॥

कर्णिका कटुका तिका शीतला शुक्रला लघुः ।

ग्राहिणी दीपनी हृद्या वर्ण्या दोषत्रयापहा ॥

कुब्जकः सुरभिः स्वादुः कषायानुरसः सरः ।

त्रिदोषशमनो वृष्यः शीतहर्ता च स स्मृतः ॥कैयदेवनिघण्टुओषधिवर्ग

तरुणी रामतरुणी कर्णिका चारुकेशरा ।

सहा कुमारी गन्धाद्या द्विरेफगणसम्मता ॥

तरुणी श्लेष्मपित्तघ्नी ग्राहिणी शीतलाऽग्निजित् ॥

धन्वन्तरिनिघण्टुआम्नादिवर्ग

शतपत्री तरुण्युक्ता कर्णिका चारुकेशरा ।

महाकुमारी गन्धाद्या लाक्षा कृष्णातिमञ्जुला ॥

शतपत्री हिमा हृद्या ग्राहिणी शुक्रला लघुः ।

दोषत्रयास्रजिद्वर्ण्या कट्वी तित्ता च पाचनी ॥भावप्रकाशपुष्पवर्ग

तरुणी सहा कुमारी गन्धाद्या चारुकेशरा भृङ्गोष्ठा ।

रामतरुणी तु सुदला बहुपत्रा भृङ्गवल्लभा च दशाहा ॥

तरुणी शिशिरा स्निग्धा पित्तदाहज्वरापहा ।

मधुरा मुखपाकघ्नी तृष्णाविच्छर्दिवारिणी ॥

महती तु राजतरुणी महासहा वर्ण्यपुष्पकोऽम्लानः ।

अमितालकः सुपुष्पः सुवर्णपुष्पश्च सप्ताहः ॥

विज्ञेया राजतरुणी कषाया कफकारिणी ।

चक्षुष्या हर्षदा हृद्या सुरभिः सुरवल्लभा ॥राजनिघण्टु करवीरादिवर्ग

karnikā rāmataruṇī taruṇī cārukeśarā ।



kaṅṭakaprāvṛtā dhīrā nīlālikulasāṅkulā |  
aparā bhadrataruṇī bṛhatpuṣpātikeśarā |  
kupapra kuñjakī vallī kumārī karṇikāparā ||  
mahāsahā kaṅṭakākhyā paṅkāro jalakubjakaḥ |  
mahākumārī gandhāḍhyā tatpuṣpaṃ bhaṣa mucyate ||  
karṇikā kaṭukā tiktā śītalā śukralā laghuḥ |  
grāhiṇī dīpanī hṛdyā varṇyā doṣatrayāpahā ||  
kubjakaḥ surabhiḥ svāduḥ kaṣāyānurasah sarah |  
tridoṣaśamano vṛṣyaḥ śītahartā ca sa smṛtaḥ  
||kaiyadevanighaṅṭuoṣadhivarga

taruṇī rāmataruṇī karṇikā cārukeśarā |  
sahā kumārī gandhāḍhyā dvirephagaṇasammatā ||  
taruṇī śleṣmapittaghñī grāhiṇī śītalā'gnijit ||  
dhanvantarinighaṅṭuāmrādivarga  
śatapatrī taruṇyuktā karṇikā cārukeśarā |  
mahākumārī gandhāḍhyā lākṣā kṛṣṇātimañjulā ||  
śatapatrī himā hṛdyā grāhiṇī śukralā laghuḥ |  
doṣatrayāsrajidvarṇyā kaṭvī tiktā ca pācanī  
||bhāvaprakāśapuṣpavarga  
taruṇī sahā kumārī gandhāḍhyā cārukesarā bhṛṅgeṣṭā |  
rāmataruṇī tu sudalā bahupatrā bhṛṅgavallabhā ca daśāhvā ||  
taruṇī śīsīrā snigdha pītadāhajvarāpahā |  
madhurā mukhapākaghñī tṛṣṇāvicchardivāriṇī ||

mahatī tu rājataruṇī mahāsahā varṇyapuṣpako'mlānaḥ |  
amitālakaḥ supuṣpaḥ suvarṇapuṣpaśca saptāhvaḥ ||  
vijñeyā rājataruṇī kaṣāyā kaphakāriṇī |  
cakṣuṣyā harṣadā hṛdyā surabhiḥ suravallabhā ||rājanighaṇṭu  
karavīrādivarga

### **Key actions of Rose:**

- Anti - depressant
- Anti - spasmodic
- Aphrodisiac
- Anti - bacterial
- Anti - viral
- Antiseptic
- Anti - inflammatory
- Blood tonic
- Cleansing
- Digestive stimulant
- Expectorant
- Increases bile production
- Menstrual regulator

### **Traditional health benefits of rose:**

Shukrala - improves male and female reproductive system,  
improves semen and sperm quality and quantity

Grahi - absorbent, bowel binding, useful in IBS, diarrhoea

Deepani - improves digestion strength

Hrudya - cardiac tonic, good for heart

Varnya - promotes skin complexion

Shishira - coolant

Pittahara - Balances Pitta

Dahahara - relieves internal burning sensation, seen in Pitta imbalance conditions such as gastritis, sore throat, laryngitis, sun stroke etc

Jwarahara - useful in fever

### **Indicated in -**

Mukhapakaghni - indicated in mouth ulcers

Trushna - Excessive thirst

Chardi - vomiting

### **Raja Taruni - bigger variety:**

Kashaya - astringent

Kaphakara - increases Kapha Dosha

Chakshushya - useful in improving eye sight

Harshada - pleasant, useful in depression

Hrudya - cardiac tonic, good for heart

### **Kubjaka variety of rose - plant musk rose (Rosa moschata) is -**

Swadu - sweet

Kahaya - astringent sub taste

Sara - laxative, promotes movement of liquids in channels

Tridosha shamana - balances all the three Doshas

Vrushya - aphrodisiac

Sheetahara - alleviates coldness

### **Important formulations containing Rose:**

- **Pravala Pishti:** Praval Pishti is a medicine prepared from Coral. It is used in Ayurvedic treatment of cough, cold, Pitta related diseases.
- **Mukta Pishti:** It is a medicine prepared from Pearl. Rose water is added to make the paste. It is used to treat diarrhea with bleeding, Mania, Psychosis.
- **Manikya Pishti:** It is a medicine prepared from Ruby and is used to treat oligospermia, boost the memory and immunity.
- **Gulkand:** It is a paste like preparation consumed in a dose of 10 - 12g in divided dose with milk to treat gastric ulcer, burning sensation of the body and other pitta dosha predominant diseases.
- **Gulab arka** - It is the distillate manufactured from the rose petals and is used to treat burning sensation of the eyes, remove bad odor of the body.

### **Research articles related to Rosa indica (Rose):**

**Anti - microbial activity** - All solvent soluble fractions of Rosa Indica showed superlative activity against Streptococcus pneumonia, Shigella flexneri, Proteus mirabilis, Pneumonia,

Salmonella typhimurium, Vibria cholera, E. coli, Pneumonia aeruginosa but no activity was recorded against Proteus mirabilis by hexane and chloroform fraction.

**Anti - bacterial activity** - The methanolic extracts of Red rose petals were found to be most effective against all the pathogens used, they gave a zone of inhibitions of 27 mm against Escherichia coli, 26mm against Pseudomonas aeruginosa, and 25 mm against Staphylococcus aureus which was far better than the zone of inhibition given by the standard antibiotic Tetracycline used throughout the study.

In wound healing study, the 5mg/ml ethanolic extract of leaves of pink rose has highest wound healing activity. In anti - bacterial study, results showed that 5mg/ml showed moderate zone of inhibition against staphylococcus aureus and Escheria coli, maximum zone of inhibition were produced against them at 20mg/ml.

### **Names in different languages:**

Hindi name - Gulab

English name - Rose

Kannada - Gulabihuvu

Telugu name - GulabiPuvvu

### **Sanskrit Synonyms:**

Shatapatri - Having many petals

Karnika - Having big petals like ears

Laksha - Red colored like laksha

Gandhadya - Having good fragrance

Charukesara - Having good looking petals

Kantakapravrutta - having thorns

Dheera, Taruni,

**Classical categorization:**

BhavaprakashaNighantu - Pushpavarga

DhanvantariNighantu - Amradivarga

KaiyyadevaNighantu - Oushadhivarga

Raja Nighantu - Karaveeradivarga

**Scientific classification:**

Kingdom:Plantae

Division:Magnoliophyta

Class:Magnoliopsida

Order:Rosales

Family:Rosaceae

Subfamily:Rosoideae

Genus: Rosa

## **9. Almond (Badam) Benefits, Dose, Side Effects - Ayurveda Details**

Almond - Badam - known as Vatada in Ayurveda, is mainly for the treatment of nerve disorder, general debility, to improve the memory power and increase the sexual vigor.

Botanical name - Prunus amygdalus Baill.

Family - Rosaceae

### **Names in different languages:**

Hindi name - Badaam

English name - Almond

Tamil name - Vaadumai

Kannada name - Badami

Unani name - Baadam Shireen

Almond tree is a small, naturally found and also cultivated tree in the region of Kashmir, Himachal Pradesh and temperate regions of India. It grows up to a height of 6 - 8m bearing red flowers.



### **Synonyms:**

Vata vairi - Pacifies the vata dosha

Netropa phala - Beneficial for the eyes

Vatama - Reduces the vitiated vata dosha

वातादो वातवैरी स्यान्नेत्रोपमफलस्तथा ।

वातादः उष्णः सुस्निग्धो वातघ्नः शुक्रकृद् गुरुः ।

वातादमज्जा मधुरो वृष्यः पित्तानिलापहः ।

स्निग्धोष्णः कफकृन्नेष्टो रक्तपित्तविकारिणाम् ॥

भावप्रकाश आम्रादिफलवर्ग

vātādo vātavairī syānnetroamaphalastathā ।

vātādaḥ uṣṇaḥ susnigdho vātaghnaḥ śukrakṛd guruḥ ।

vātādamajjā madhuro vṛṣyaḥ pittānilāpahaḥ ।

snigdhoṣṇaḥ kaphakṛnneṣṭo raktapittavikāriṇām ॥

bhāvaprakāśa āmrādiphalaavarga

### **Properties:**

Rasa (Taste) - Madhura (Sweet)

Veerya (Potency) - Usna

Guna (Quality) - Snigdha (Slimy), Guru (Heavy)

Vipaka - Madhura (Undergoes sweet taste after digestion)

Karma (Properties) - Vatahara (Reduces vata dosha), Pitta Kara (Increase pitta dosha), Vrsya (Aphrodisiac), Balya (Provide strength)



## **Ayurvedic health benefits of Almond:**

Vrushya - aphrodisiac, improves vigor

Vatahara - useful in treating disorders of Vata Dosha imbalance such as neuralgia, paralysis, constipation, bloating, etc

Shukrala - improves sperm and semen quantity and quality

Raktapitta - useful in bleeding disorders such as nasal bleeding, heavy periods, etc

Its fruit pulp is balances Vata and Pitta Dosha. It slightly increases Kapha Dosha

## **How to consume almonds?**

Many experts opine that, it is better to soak almonds in water over night, next day, peel the skin off, and consume it on empty stomach.

Soaking and peeling the skin off helps to absorb the almond nutrients better.

**Dose per day:** For regular consumption, 5 almonds per day is a good dose.

Almonds can also be enjoyed in other ways such as - its powder, boiled with milk along with breakfast, using it in making porridge, kheer etc, making powder and mixing with beverage drinks such as horlicks etc.

## **Major chemical Constituents:**

The chief protein of almond is amandin. Amandin has about 12% arginine content. The bitter kernels of almond contain

about 3 - 3.5% arginine whereas the ripened sweet almond kernel is free of arginine. The bitter almond oil containing hydrocyanic acid is used as antispasmodic and sedative. Owing to the presence of amygdalin, the bitter almond is unfit for human consumption. The seed oil contains myristic, palmitic, stearic and linoleic acid. The seed contains prunasin, daucosterin.

**Part Used** - Seed and its Kernel

**Dosage** - Seed Powder 3 - 5 g

**Uses of Vatada (Almonds):**

- The powder of almond is taken in a dose of 5 - 8 g with milk as a nerve tonic and as memory booster.
- Almond is used as health promoter. Hence it is an ingredient in many commercially available health drinks, health powders.
- It is used in the preparation of many confectionaries, sweets as adjuvant to enhance the taste of the product.
- The lehya (type of ayurvedic confectionery) is prepared and given to patients suffering from low back ache, migraine headache and women suffering from irregular menstruation in a dose of 5 - 8 g with milk.

**Important formulations containing Vatada:**

- **Spark royal capsule** - Spark royal strengthens and tones the sexual glands. It supports the healthy production of sex hormones and is very good for increasing sexual ability. It

also increases stamina and libido and acts as a restorative nutrient.

- Many of the health drinks available in the market contain almonds. It ensures stamina, boosting the immunity and memory.
- Jivaniyadi Ghrita
- Amritaprasha Ghrita
- Mahamayura Ghrita

### **Research articles related to Vatada (Almonds):**

- **Therapeutic application of almonds** - Almonds are good sources of anti - oxidant nutrients. Almonds contain proteins and certain minerals such as calcium and magnesium. They are a rich source of vitamin E, dietary fiber, B - vitamins, essential minerals mono - unsaturated fats and phytosterols which have cholesterol lowering properties.
- **In treating amnesia** - Diminished cholinergic transmission and increase in cholesterol levels appear to be responsible for the development of amyloid plaques and dementia in Alzheimer patients, PA may prove to be a useful memory - restorative agent. It would be worthwhile to explore the potential of this plant in the management of Alzheimer's disease.
- **Antioxidant Defense and Hepatoprotection** by Procyanidins from Almond (*Prunus amygdalus*) Skins -

Procyanidins, polymeric flavan - 3 - ols, are known to possess antioxidant, antiatherogenic, and anticarcinogenic properties. ASP also potently enhanced the expression of nuclear factor - E2 - related factor 2 (Nrf2) and antioxidant response element (ARE) - reporter gene activity in vitro. APAP - induced hepatotoxic markers including AST and ALT in mice were inhibited by ASP administration.

### ***Precaution - Potential toxic risk***

The study revealed a wide range of cyanide concentrations in commonly available bitter almonds and apricot kernels, in contrast to almond syrup, which is exempt of hydrocyanic acid and remains a product without any risk to human health.

### **Side effects:**

Excess almonds - more than 8 - 10 per day may cause bloating, constipation and nausea.

Almonds are considered safe during pregnancy, lactation and in children.

### **Classical categorization:**

Charaka - Phala varga

Bhavaprakasha - Amradi phala varga

## **10. Padmaka - Prunus cerasoides: Uses, Dose, Research, Side Effects**

Padmaka - Prunus cerasoides, is an Ayurvedic herb used for the treatment of skin diseases, increasing the complexion and used as uterine tonic. It is also known as Wild Himalayan Cherry.

Latin Name - Prunus puddum Roxb. (Prunus cerasoides Don.)

Family - Rosaceae

Padmaka is a medium to a tall growing tree growing naturally in the Himalayan belt of India at an altitude of 5000 - 8000 feet. The trunk is pale reddish with nodules and smells resembling that of lotus. The flowers are white or pinkish in color.



### **Uses of Padmak:**

- The powder of the plant Padmaka is applied in the form of paste in the treatment of skin diseases, to improve the complexion of skin, to treat herpes.
- The heartwood of the plant Prunus pudum is used to treat vomiting, nausea and gastritis. The powder is given in dosage of 3 - 5 g.
- The dried powder of the seed of Prunus pudum is given in dosage of 3 - 5 g to treat renal stones.
- The decoction of Padmaka is given in divided dose of 40 - 50 ml per day to treat bleeding per vagina, weakness of the uterus and to prepare the uterus for conceiving the foetus.
- The bark or the heartwood of Padmaka is added to boiling water. The boiled water is given to patients suffering from excessive sweating, burning sensation of the whole body and to treat fever.



## **Names in different languages:**

Hindi Name - Padmakh, Padmak

English Name - Bird Cherry, Wild Himalayan Cherry, Sour cherry

Telugu Name - Padma Kashtam

Malayalam Name - Padimukham

Gujarati Name - Padmakashta

Khumayun Name - Payiyan

Bengali Name - Padam

## **Padmaka medicina Properties**

Rasa (taste) - Kashaya (astringent), Tikta - bitter

Guna (qualities) - Laghu - light to digest, Snigdha - unctuous, oily

Vipaka - Katu - Undergoes pungent taste conversion after digestion

Veerya - Sheeta - Coolant

Karma - Kapha - Pittahara, (Reduces the increased Kapha and Pitta dosha)

Garbhasthapana (helps in conception by preparing the uterus)



**Part used** - Stem bark, Seeds

**Dosage** - Heartwood powder 1 - 3 g

Decoction - 40 - 50 ml in divided dose

**Chemical composition of Prunus cerasoides:**

The plant contains a flavone glucoside - puddumin - A. The bark of the root contains beta - sitosterol, stigmasterol, ursolic acid, prunetinoside, glucogenkwanin and neosakuranin. Seeds contain flavonoid glycosides. The leaves, twigs, bark and kernels contain a cyanogenetic substance.

पद्मकाष्ठं पद्मवर्णं पद्मकं हेमवर्णकम् ॥

सुप्रभो विमलश्वारुः शीतवीर्यो मरुच्छ्रितः ।

पीतरक्तः पद्मगन्धिः पाटलापुष्पवर्णकः ॥

पद्मकं तुवरं तिक्तं शीतलं वातलं लघु ।

गर्भस्य स्थापनं दाहविषपित्तकफास्रजित् ॥



विस्फोटव्रणवीसर्पवमिकुष्ठतृषापहम् | कैयदेवनिघण्टु - ओषधिवर्ग

पद्मको मलयश्चारुः पीतरक्तो मरुद्भवः |

सुप्रभः शीतवीर्यश्च पाटलापुष्पवर्णकः ॥

पद्मकं शिशिरं स्निग्धं कषायं रक्तपित्तनुत् |

गर्भस्थैर्यकरं प्रोक्तं ज्वरच्छर्दिविषापहम् ॥

मोहदाहज्वरभ्रान्तिकुष्ठविस्फोटशान्तिकृत् ॥ धन्वन्तरिनिघण्टु -

चन्दनादिवर्ग

पद्मकं पद्मगन्धि स्यात्तथा पद्माह्वयं स्मृतम् |

पद्मकं तुवरं तिक्तं शीतलं वातलं लघु |

वीसर्पदाहविस्फोटकुष्ठक्षेष्मास्रपित्तनुत् |

गर्भसंस्थापनं रुच्यं वमिव्रणतृषाप्राणुत् ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - कर्पूरादिवर्ग

पद्मकं पीतकं पीतं मालयं शीतलं हिमम् |

शुभ्रं केदारजं रक्तं पाटलापुष्पसन्निभम् |

पद्मकाष्ठं पद्मवृक्षं प्रोक्तं स्याद्द्वादशाह्वयम् ॥

मोहदाहज्वरभ्रान्तिकुष्ठविस्फोटशान्तिकृत् ॥ राजनिघण्टु - चन्दनादिवर्ग

padmakāṣṭham padmavarṇam padmakam hemavarṇakam ॥

suprabho vimalaścāruḥ śītavīryo marucchritaḥ |

pītaraktaḥ padmagandhiḥ pāṭalāpuṣpavarṇakaḥ ॥

padmakam tuvaram tiktaḥ śītalam vātalam laghu |

garbhasya sthāpanam dāhaviṣapittakaphāsrajit ॥

visphoṭavraṇavīsarvapamikuṣṭhatrṣāpaham |

kaiyadevanighaṇṭu - oṣadhivarga

padmako malayaścāruḥ pītarakto marudbhavaḥ |

suprabhaḥ śītavīryaśca pāṭalāpuṣpavarṇakaḥ ॥

padmakam śīśiram snigdham kaṣāyam raktapittanut |

garbhasthairyakaram proktaḥ jvaracchardiviṣāpaham ॥

mohadāhajvarabhrāntikuṣṭhavisphoṭaśāntikṛt ॥

dhanvantarinighaṇṭu - candanādivarga

padmakam padmagandhi syāttathā padmāhvayam smṛtam |

padmakam tuvaram tiktaḥ śītalam vātalam laghu |

vīsarpadāhavisphoṭakuṣṭhaśleṣmāsrappittanut |

garbhasamsthāpanam rucyam vamivraṇatrṣāpraṇut ॥

bhāvaprakāśa - pūrvakhaṇḍa - miśraprakaraṇa -

karpūrādivarga

padmakam pītakam pītam mālayam śītalam himam |

śubhraṃ kedārajaṃ raktaṃ pāṭalāpuṣpasannibham |  
padmakāṣṭhaṃ padmavr̥kṣaṃ proktaṃ syāddvādaśāhvayam ||  
mohadāhajvarabhrāntikuṣṭhavisphoṭaśāntikṛt || rājanighaṇṭu -  
candanādivarga

### **Ayurvedic uses and indications:**

Visarpa - herpes

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Visphota - boils, blisters

Kushta - skin diseases

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Visha - Toxic conditions, poisoning

Trushna - excessive thirst

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Jwara - fever

Chardi - Vomiting

Moha - dizziness, delusion

Bhranti - dizziness, insanity

Garbha Samsthapana - protects pregnancy

### **Important formulations containing Padmaka:**

**Chandanadi taila** - It is an Ayurvedic oil used to treat burning

sensation, dizziness, nasal bleeding.

**Mahabringaraj oil** - An ayurvedic oil which is used to treat hair fall, headache, pain and stiffness of neck.

**Jatyadi Oil** - It is an ayurvedic oil preparation which is beneficial in the treatment of wounds, ulcers. This formulation is used for external purpose.

**Triphaladi oil** - It is an ayurvedic oil used for external application to treat hair fall, sinusitis, neck pain.

**Stanyajanana rasayana** - It is an ayurvedic formulation in the form of confectionery to benefit lactating mothers for increasing the breast milk, immunity and body strength.

**Bala oil** - It is an oil to treat Vata diseases, vomiting, cough, cold, asthma, wound, emaciation etc. The oil is used both externally and internally.

**Grahanimihira oil** - Ayurvedic oil used in the treatment of diarrhea, fever, cough, etc. This oil is used both for external and internal administration.

### **Research articles related to Prunus paddum:**

**Wound healing property** - The ointment prepared from the plant Prunus paddum showed wound healing action in human population.

### **Side effects:**

There are no known side effects with this herb.

## **Classical categorization:**

Charaka -

Vedanasthapana mahakashaya (Group of herbs useful in relieving pain),

Kashaya skanda (astringent tasting group of herbs)

Sushruta - Sarivadi gana, Chandanadi gana

Bhavaprakasha - Karpooradi varga

Dhanwantari Nighantu - Chandanadi varga

Kaiyyadeva Nighantu - Oushadi varga

Raja Nighantu - Chandanadi varga

## **Sanskrit Synonyms:**

Padmaka - Similar to lotus flower

Padmagandhi - Smelling like lotus

Suprabha, Vimala, Charu - the tree is very attractive to look at.

Padmakashta, Padmavarna, Maruchitra, Marudbhava

Peetarakta, Hemavarnaka, - reddish yellow / golden colour

Patala Pshpavarnaka

Malaya - grows in Himalayan regions

## **11. Pashanabheda - Bergenia ligulata: Uses, Research, Side Effects**

Pashanabheda - Bergenia ligulata (Wall.) Engl. is a small plant used in the treatment of renal calculi, retention of urine, wounds, diseases of the vitiated Rakta and Pitta dosha.

Latin Name - Bergenia ligulata

Family - Saxifragaceae

### **Names in different languages:**

Hindi Name - Pakhanbheda, Patharchoor

Gujarati Name - Pakhanbheda

Bengali Name - Patharkuchi

Sinhalese Name - Pahanabeya

Arabian Name - Junteyenah

Assamese Name - Patharkuchi

Kannada Name - Pashanbhedi, Hittaga, Pasanaberu, Hittulaka

Tamil Name - Sirupilai

Punjabi Name - Kachalu

Telugu Name - Kondapindi

Malayalam Name - Kallurvanchi, Kallurvanni, Kallorvanchi

### **Synonyms -**

Ashmagna - It destroys the renal stone

Sailobheda - It penetrates through the stones

Upalabhedaka - It destroys the flat surface of stone

Shilabheda - It grows between the wedges of stones

All the synonyms explain about the urolithic action of the herb and also about the growing pattern of the herb in between the stones.

Drushadbheda, Prasthara, Nagabheda, Pashanabheda is a small shrub found in the plains and mountain region of Himalaya growing at an altitude of 900 - 3000 meters. The plant grows in between the wedges of the stones of the mountains. The root of the plant is reddish in color.

**Properties:**

Rasa (taste) - Kashaya - astringent, Tikta - bitter

Guna (qualities) - Laghu (lightness), Snigdha (oiliness)

Vipaka - Katu - Undergoes pungent taste conversion after digestion

Veerya - Sheeta - Coolant

Effect on Tridosha - Tridosahara, (Balances all the three Doshas), Mootravirecaniya (helps in easy micturition)

Prabhava (Special action) - Ashmari bhedana (crush the renal stone)

अश्मभेदो दृषद्भेदः प्रस्तरो नगभेदकः ॥

पाषाणभेदो नगदिदश्महोश्मरिभेदनः ।

अश्मभेदो हिमस्तिक्तः कषायो वस्तिशोधनः ॥

भेदनो हन्ति दोषार्शोगुल्मकृच्छ्राश्मद्द्रुजः ।

योनिरोगप्रमेहांश्च प्लीहशूलव्रणानपि ॥ कैयदेवनिघण्टु - ओषधिवर्ग

पाषाणभेदकोऽश्मघ्नः शिलाभेदोऽश्मभेदकः ।

स चैवोपलभेदश्च नगभिदृषदश्मजित् ॥

पाषाणभेदकः शूलकृच्छ्रमेहत्रिदोषजित् ।

अश्मभेदो हिमस्तित्तः शर्कराशिश्वशूलजित् ॥ धन्वन्तरिनिघण्टु -

गुडूच्यादिवर्ग

पाषाणभेदकोऽश्मघ्नो गिरिभिद्विन्नयोजिनी ।

अश्मभेदो हिमस्तित्तः कषायो बस्तिशोधनः ।

भेदनो हन्ति दोषार्शोगुल्मकृच्छ्राश्मद्द्रुजः ।

योनिरोगान्प्रमेहांश्च प्लीहशूलव्रणानि च ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - हरीतक्यादिवर्ग

पाषाणभेदकोऽश्मघ्नः शिलाभेदोऽश्मभेदकः ।

स चैवोपलभेदश्च नगभिदृषदश्मजित् ।

श्वेता चोपलभेदी च नगजिच्छलिगर्भजा ॥

पाषाणभेदो मधुरस्तित्तो मेहविनाशनः ।



तृडाहमूत्रकृच्छ्रघ्नः शीतलश्चाश्मरीहरः ॥

क्षुद्रपाषाणभेदान्या चतुष्पत्री च पार्वती ।

नागभूरश्मकेतुश्च गिरिभूः कन्दरोद्भवा ॥

शैलोद्भवा च गिरिजा नगजा च दशाह्वया ।

क्षुद्रपाषाणभेदा तु व्रणकृच्छ्राश्मरीहरा ॥ राजनिघण्टु - पर्पटादिवर्ग

aśmabhedo dr̥ṣadbhedah̥ prastaro nagabhedakah̥ ॥

pāṣāṇabhedo nagadidaśmahośmaribhedanaḥ ।

aśmabhedo himastiktaḥ kaṣāyo vastiśodhanaḥ ॥

bhedano hanti doṣārśogulmakṛcchrāśmahṛdrujaḥ ।

yonirogapramehāṃśca plīhaśūlavraṇānapi ॥

kaiyadevanighaṇṭu - oṣadhivarga

pāṣāṇabhedako'śmaghnaḥ śilābhedo'śmabhedakah̥ ।

sa caivopalabhedaśca nagabhiddr̥ṣadaśmajit ॥

pāṣāṇabhedakah̥ śūlakṛcchramehatridoṣajit ।

aśmabhedo himastiktaḥ śarkarāśiśnaśūlajit ॥

dhanvantarinighaṇṭu - guḍūcyādivarga

pāṣāṇabhedako'śmaghno giribhidbhinnayojinī ।

aśmabhedo himastiktaḥ kaṣāyo bastiśodhanaḥ ।

bhedano hanti doṣārśogulmakṛcchrāśmahṛdrujaḥ ।

yonirogānpramehāṃśca plīhaśūlavraṇāni ca ॥ bhāvaprakāśa -

pūrvakhaṇḍa - miśraprakaraṇa - harītakyaādivarga

pāṣāṇabhedako'śmaghnaḥ śilābhedo'śmabhedakaḥ |  
sa caivopalabhedaśca nagabhiḍhṛṣadaśmajit |  
śvetā copalabhedī ca nagajicchiligarbhajā ||  
pāṣāṇabhedo madhurastikto mehavināśanaḥ |  
tr̥ḍdāhamūtrakṛcchraghnaḥ śītalaścāśmarīharaḥ ||  
kṣudrapāṣāṇabhedānyā catuṣpatrī ca pārvatī |  
nāgabhūraśmaketuśca giribhūḥ kandarodbhavā ||  
śailodbhavā ca girijā nagajā ca daśāhvayā |  
kṣudrapāṣāṇabhedā tu vraṇakṛcchrāśmarīharā || rājanighaṇṭu -  
parpaṭādivarga

### **Chemical constituents:**

The rhizome of the plant *Bergenia ligulata* contains bergenin, gallic acid, starch, glucose, tannins, mucilage and wax; a C - glycoside and beta - sitosterol.

**Useful part:** Root

### **Dosage, how to use?**

30 - 40 ml of the decoction of the rhizome - 1 tablespoon of rhizome powder is added with 2 cups of water, boiled and reduced to half a cup, filtered and administered.

Its fine powder is also directly used in the dose of 3 - 6 g of the powder.

### **Uses of Pashanabheda:**

- The paste of the root of the plant *Berginia ligulata* is applied over localized swelling and wounds for treatment.
- The decoction of the root of *Berginia ligulata* is given in dosage of 40 - 50 ml per day in divided dose to treat renal calculi, burning micturition and retention of urine in the bladder.
- The paste of the root of *Pashanabheda* is applied with honey in small children to reduce the pain of gums during the eruption of milk teeth.
- The paste of the root of *Pashanabheda* is given as antidote for opium poisoning.
- The paste is applied over the eyes to treat the disease conjunctivitis.
- The decoction of the plant *Berginia ligulata* is given in a dosage of 50 ml in divided dose to treat diarrhea, piles, fever and dysmenorrhea.

### **Traditional Ayurvedic indications of Pashanbhed:**

Bastishodhana - cleanses urinary bladder

Bhedana - piercing,

Indicated in -

Arsha - Hemorrhoids

Gulma - abdominal tumor, distension

Mutrakrichra - dysuria, difficulty to pass urine

Hrudruja - Hrudroga - Cardiac disorders

Yoniroga - Gynaecological disorders

Prameha - Urinary tract disorders, diabetes

Pleeha - Spleen related disorders, splenomegaly

Shoola - abdominal colic

Vrana - ulcers, wounds

**Another variety** - Kshudrapashana is useful in

Vrana - ulcers, wounds

Mutrakrichra - dysuria, difficulty to pass urine

Ashmari - urinary calculi

### **Adverse effect of Pashanabhed:**

There is no contraindication known to take this herb or any adverse effects reported so far after taking this herb in any form as medicine.

### **Formulation containing Pashanabhedha:**

- **Ashmarihara kashaya** - Ashmarihara Kashaya is an Ayurvedic medicine in water decoction form. It is used in the treatment of urinary calculi. It has to be taken in a dosage of 40 - 50 ml per day in divided dose.
- **Diureston tablet** - It is an Ayurvedic proprietary tablet which contains Pashanabedha and can be effectively used in the conditions of urinary calculi, retention of urine.
- **Vastyamayantaka Ghrita** - It is an Ayurvedic medicine in medicated ghee form used to treat the diseases related to the

urinary bladder like urine retention, stones in the urinary bladder.

- **Mootravirechaniya kashaya** - It is a Kashaya used to relieve retention of urine, cleanse the bladder and treat urinary tract infections. It has to be taken in a dosage of 40 - 50 ml per day in divided dose.
- **Ural syrup and Capsules** - An Ayurvedic proprietary medicine which can be effectively used against renal calculi, burning micturition, treat urinary tract infection.

### **Research articles on Bergenia ligulata:**

**Antiuro lithic effect** - The study indicates the anti urolithic effect of Bergenia ligulata possibly through crystal inhibition, diuretic and anti - oxidant effects.

It imparts different properties i.e. diuretic, anti - diabetic, astringent, cardio tonic, wound healer, expectorant, antipyretic, hepatoprotective, anti - cancer, antiprotozoal, anti - inflammatory, kidney stone due to certain phytochemical constituents Bergenin, Tannic acid, Gallic acid, Stigmesterol, ? - Sitosterol, catechin, (+) - Afzelechin, 1, 8 - cineole, Isovaleric acid, (+) - (6S) - parasorbic acid, Arbutin, Phytol, Caryophyllene, Damascenone, ? - eudesmol, 3 - methyl - 2 - buten - 1 - ol, (Z) - asarone, Terpinen - 4 - ol, Paashaanolactone present in it. The aim of present article is to

explore the medicinal importance of the plant *Bergenia ligulata* wall.

**Hepato protective, diuretic and anti - pyretic action:** The ethanolic extract of the plant *Bergenia ligulata* was assessed for hepato protective, diuretic and anti - pyretic action and was compared with the standard drug. The extract of the plant showed significant action to control the diseased condition in albino rats.

**Anti microbial activity -** The rhizome of *Bergenia ligulata*, belonging to the family *Saxifragaceae* was screened for its antimicrobial activity against *Escherichia coli*, *Staphylococcus aureus*, *Streptococcus pneumoniae* and *Salmonella typhii* using agar well diffusion method. Methanol extract exhibited larger inhibition zone 21mm against *Staphylococcus aureus* and *Streptococcus pneumoniae* as compared to *Salmonella typhii* and *Escherichia coli*. Ethanol extract showed larger inhibition zone against *Staphylococcus aureus* and *Salmonella typhii*. Acetone extract showed larger inhibition of 24mm zone against *Escherichia coli* as compared to *Staphylococcus aureus*, *Salmonella typhii* and *Streptococcus pneumoniae*. Water extract showed largest inhibition zone of 25mm against *Staphylococcus aureus* as compared to *Salmonella typhii*, *Escherichia coli* and *Streptococcus pneumoniae*.

### **Classical categorization:**

Charaka - Mutravirechaniya - group of herbs useful in cleansing urine / bladder

Susruta - Viratarvadi

Vagbhata - Viratarvadi

Bhavaprakasha - Haritakyadi varga

Dhanwantari Nighantu - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadi varga

Raja Nighantu - Parpatadi varga

## **12. Parnabeeja Bryophyllum pinnatum Uses, Research, Side Effects**

Parnabeeja - Bryophyllum pinnatum (Lam.) Kurz. is a herb used for the treatment of wounds, ulcers, piles and to control bleeding.

Botanical Name - Bryophyllum pinnatum (Lam.)

Kurz., Bryophyllum calycinum

Family - Crassulaceae

Bryophyllum calycinum Salisb. has been used synonymously for the plant Parnabeeja



### **Names in different languages:**

English name - air plant, cathedral bells, life plant, miracle leaf, and Goethe plant, Bryophyllum

Hindi Name - Airavati, Pathacharuti

Unani Name - Jhakme hayat



Telugu Name - Ranapalaku

Bengali Name - Koppata

Gujarati Name - Ghaimari

Marathi name - Panfuti

Oriya name - Amarapoi

Telugu name - Ranapalaku

Urdu name - Jhakme hayat

Parnabeeja is a small shrub growing up to a height of 1 - 4 feet and found abundantly in the warm and moist parts of central and eastern India. This plant is a native of Madagascar country. This plant is not mentioned in any Samhitas of Ayurveda like Charaka, Sushruta, Astanga Sangraha/ Hridaya or in any popular Nighantus like Dhanwantari Nighantu, Bhava Prakasha.



**Morphology of Bryophyllum calycinum:**

Parnabeeja is a small plant growing to a height of 1 - 4 feet.

The leaves are thick, fleshy, round to oval in shape. The flowers are 1 - 1.5 inch long, greenish purple in color. The seeds are small, round, slimy with small ridges. New growth is seen from the edges of the leaf. Flowers are seen in the month of October - November. The plant can be found all over India in the temperate climate.

**Bryophyllum pinnatum medicinal qualities:**

Guna (qualities) - Laghu - light to digest, Rooksha - Dryness

Rasa (taste) - Kashaya - Astringent, Amla - sour

Vipaka (taste conversion after digestion) - Madhura - sweet

Veerya - Sheeta - Coolant

Effect on Tridosha: Kapha - Pitta Hara (Reduces the vitiated Kapha and Pitta dosha), Raktastambhana ( helps in coagulation of blood), Vranaropana (helps in the wound healing)



**Chemical composition:**

The leaves of the plant *Bryophyllum pinnatum* yield glycosides of quercetin and kaempferol and fumaric acid. The extracts of the plant are anti - fungal in nature.

**Useful part:** Leaf

**Dosage** - Fresh juice is administered in the dose of 10 - 20 ml, before or after food.

Paste of leaf - Used externally



### **Uses of Parnabeeja - Bryophyllum pinnatum**

- The paste of the leaves of Bryophyllum pinnatum is used for external application in the treatment of boils, insect bites and burns.
- The decoction of the leaves of the plant Bryophyllum pinnatum along with Aegle marmelos (Bilwa) is given to treat dysentery in a dosage of 30 - 40 ml in divided dose.
- The fresh juice of the leaves of Parnabeeja is given in a dose of 8 - 10 ml to control bleeding piles, fresh wounds and dysmenorrhea.
- Juice of the leaf is given in a dose of 10 - 15 ml to control bleeding in cases of piles and blood mixed diarrhea.
- The paste of the leaves of the plant is applied to reduce localized swelling.
- The juice of the leaves of the Bryophyllum is given with sugar candy to treat asthma, cold and cough.

- The dried powder of the leaf of Bryophyllum pinnatum is used to prepare herbal tea due to its anti - oxidant property.
- The juice or cold infusion of Parnabeeja is given as part of treatment in condition of dysmenorrhea.
- The juice of the leaf of Bryophyllum is mixed with honey and given in a dose of 5 - 10 ml to treat asthma and cough.

पर्णबीज कषायम्लं मधुरं शीतमेव च।

वातपित्तहरं रक्तस्तम्भनं व्रणरेपणम् ॥ (द्र.गु.वि)

parṇabīja kaṣāyāmlaṃ madhuraṃ śītameva ca|

vātapittaharaṃ raktastambhanaṃ vraṇarepaṇam || (dra.gu.vi)

**Precaution:** Patients under 'Aspirin' medication should take care to take the decoction or fresh juice of the Bryophyllum pinnatum as it may interact or reduce the efficacy of Aspirin. However, the paste of the plant can be used for external application.

### **Important formulations containing Parnabeeja:**

**Euphor tablets:** Euphor tablet is useful in treating internal and external hemorrhoids and in fissure in ano.

### **Research articles related to Bryophyllum pinnatum:**

**Invitro anti - microbial study:** Extracts from the leaves

of *Bryophyllum pinnatum* was screened for their antimicrobial activities. These extracts were tested against some Gram - negative organisms (*Escherichia coli* ATCC 25922, *Escherichia coli*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, *Shigella flexneri*, *Salmonella paratyphi*, *Citrobacter spp*); Gram - positive organisms (*Staphylococcus aureus* ATCC 25213, *Staphylococcus aureus*, *Enterococcus faecalis*, *Bacillus subtilis*) and a fungus (*Candida albicans*). The Gram - positive organisms were more sensitive to the methanol and local gin - extract of *Bryophyllum pinnatum*.

**Antineoplastic potential of *Bryophyllum pinnatum* :** The study say that the hepatoprotective activities of the aqueous extract of *B. Pinnatum* leaves in DENA - induced hepatotoxicity may involve its antioxidant or oxidative free radical scavenging activities by alleviating lipid peroxidation through scavenging of free radicals, or by enhancing the activity of antioxidants.

**Anti cancer property of *Bryophyllum pinnata* (Lam.) Oken. leaf on human cervical cancer cells:**

Results showed presence of growth inhibitory activity in the crude leaf extracts with IC<sub>50</sub> at 552 µg/ml which resolved to fraction F4 (Petroleum Ether: Ethyl Acetate:: 50:50) and showed IC<sub>50</sub> at 91 µg/ml. Investigations of anti - viral activity of the extract and its fraction revealed a specific anti - HPV activity on cervical cancer cells as evidenced by downregulation

of constitutively active AP1 specific DNA binding activity and suppression of oncogenic c - Fos and c - Jun expression which was accompanied by inhibition of HPV18 transcription.

the effects of ethanolic extract of the leaves of Bryophyllum pinnatum against maximal electroshock (MES) induced convulsions and Pentylenetetrazole(PTZ) seizure model in mice was studied. Results obtained in this study substantiate the anticonvulsant effect of ethanolic extract of Bryophyllum pinnatum leaves.

**Anti - fungal activity of Bryophyllum leaf extract:** The impact of water stress on the growth, concentration of phytochemicals and anti - fungal potency of Bryophyllum pinnatum L. was investigated. The more the water deficit stress Bryophyllum is subjected to, the less is its potency against the growth of fungus.

**Systemic classification:**

**Kingdom:** Plantae

**Division:** Magnoliophyta

**Class:** Magnoliopsida

**Order:** Saxifragales

**Genus:** Kalanchoe

**Section:** Bryophyllum

**Species:** K. pinnata

### **13. Silhaka *Altingia excelsa*: Uses, Research, Side Effects**

Silhaka *Altingia excelsa* Noronha, is an herb which is used to treat skin diseases, fever, retention of urine, burning sensation.

**Botanical name** - *Altingia excelsa* Noronha

**Family** - Hamamelidaceae

#### **Names in different languages:**

English Name - Oriental sweet gum

Hindi Name - Sila rasa

Telugu Name - Sila rasam

Malayalam Name - Rasamalla

#### **Synonyms:**

Turushka, Kapi Taila, Dhumravarna, Pindeeta, Pindita, Kapisha

It is a medium size growing tree up to a height of 7 - 10 m.

Resin is available if a cut is made in the trunk of the tree, which quickly turns to thick consistency like honey. The resin is blackish or brownish in color. The tree is a native of Myanmar and Arab countries.

#### **Properties:**

Guna - Snigdha (Unctuous), Laghu (Light for digestion)

Rasa - Tikta (Bitter), Katu (Pungent), Madhura (Sweet)

Vipaka - Katu (Undergoes pungent taste conversion after



digestion)

Veerya - Ushna (Hot)

Effect on Tridosha: Kaphavatahara (Decreases Kapha and Vata Dosha), Vrshya (Increases potency), Kanthya (Good for the throat), Sukrala (Help in the sperm production)

**Part Used** - Gum/ Gum Resin

**Dosage** - Powder 0.5 g - 1g (usually given along with powder of Yastimadhu - Glycyrrhiza glabra)

**Chemical composition:**

The plant contains volatile oil, 5 - 15% of cinamic acid, benzoic acid, gum resin (35 - 40%) Liquid ambronal and Altingin.

तुम्बरकः सिल्हको धूम्रो धूम्रवर्णश्चलः पणः ॥

पिण्डीतः पिण्डितः कल्कः कपिशः कपिजः कपिः ।

पिण्याको पावकस्तैलसुगन्धः क्लीपिण्डिकः ॥

सिल्हकः कटुकः स्वादुः स्निग्धोष्णः कान्तिवर्णदः ।

वृष्यो हन्याद् दोषकण्डूस्वेदकुष्ठग्रहज्वरान् ॥ कैयदेवनिघण्टु -

ओषधिवर्ग

तुरुष्कं सिल्हकं स्पृक्का गुच्छा नखद्वयं मुरा ॥

सर्वेऽमी पावनालक्ष्मीरक्षोघ्नाः ज्वरनाशनाः ।

स्वादुतिक्तरसा वृष्याः स्वेददौर्गन्ध्यमर्दनाः ॥

लघूष्णाः कटुकाः पाके कफवातनिर्बहणाः । सोढलनिघण्टु - चन्दनादिवर्ग

tumbarakaḥ silhako dhūmro dhūmravarṇaścalaḥ paṇaḥ ॥

piṇḍitaḥ piṇḍitaḥ kalkaḥ kapiśaḥ kapijaḥ kapiḥ |

piṇyāko pāvakaṣṭhailasugandhaḥ klīpiṇḍikaḥ ॥

silhakaḥ kaṭukaḥ svāduḥ snigdhoṣṇaḥ kāntivarṇadaḥ |

vṛṣyo hanyād doṣakaṇḍūsvedakuṣṭhagrahajvarān ॥

kaiyadevanighaṇṭu - oṣadhivarga

turuṣkaṃ silhakaṃ sprkkā guccā nakhadvayaṃ murā ॥

sarve'mī pāvanālakṣmīrakṣoghnāḥ jvaranāśanāḥ |

svādutiktarasā vṛṣyāḥ svedadaurgandhyamardanāḥ ॥

laghūṣṇāḥ kaṭukāḥ pāke kaphavātanibarhaṇāḥ |

soḍhalanighaṇṭu - candanādivarga

### **Uses of Silhaka:**

- The resin of the plant Silhaka is dissolved in hot water or added with honey in a dose of 500 mg and given in patients suffering from cough, dyspnea (difficulty in breathing).
- The resin is dissolved in water and given in retention of urine, burning micturition.
- The resin of the plant Altingia excels Noronha is a good aphrodisiac.

- The paste from the resin of the plant is applied externally to treat skin diseases.
- The resin of the plant is applied over the fresh wounds.
- The resin is mixed with luke warm oil and applied externally to treat pain in the joints, weakness of the muscles and other diseases arising due to vitiation of Vata dosha.
- The decoction using the resin is prepared and given in patients suffering from dysmenorrhea.

### **Traditional Ayurvedic uses of Altingia excelsa:**

Kantida - improves skin lustre

Varnada - improves complexion

Vrushya - aphrodisiac

Indicated in -

Kandu - itching

Kushta - skin diseases

Graharoga - psychological disorders

Jvara - fever

Daurgandhya - foul smell, bad odor.

**Adverse reactions:** No adverse reactions have been so far reported after using the plant for therapeutic benefit.

### **Research articles and formulations of Altingia excelsa**

#### **Noronha:**

There is no research article published regarding the experimental or clinical study related to the above said plant.

No known Ayurvedic pharmaceutical manufacturer use the plant Silhaka for the manufacturing of any of the Ayurvedic formulations.

**Classical categorization:**

Sushruta - Eladi Gana

Vagbhata - Eladi gana

Kaiyyadeva Nighantu - Oushadi varga

Shodala Nighantu - Chandanadi varga

## **14. Dhava: Anogeissus latifolia Uses, Dose, Research, Side Effects**

Dhava - Anogeissus latifolia Wall. is an Ayurvedic tree used in the treatment of wounds, localized swelling, diarrhea, diabetes and skin diseases.

Botanical Name - Anogeissus latifolia Wall.

Family - Combretaceae

### **Names in different languages:**

English Name - Axle wood tree, Button tree

Hindi Name - Dhava Bakali

Bengali Name - Daoya

Gujarati Name - Dhavado

Kannada Name - Dinduga

Malayalam Name - Marukum Chiram

Telugu Name - Chiru Manu

Tamil Name - Vellaynaga

### **About Axle wood tree**

Dhava is a large tree growing in the plains and dry mountains of India up to a height of 20 - 25 m. Exudate is released from the tree, which is used for calico printing. The leaves are used for tanning purpose. The leaves are also fed on by the *Antheraea paphia* moth which produces the tassar silk (Tussah), a form of wild silk of commercial importance. The outer trunk has pale yellow color.

## **Synonyms of Dhava:**

Dhurandar - Wheels were prepared from the wood of the tree due to its strength.

Nandi taru - The trunk of the tree is strong

Sthira, Shukla Vruksha, Pandutaru, Dhavala, Pandura, Nava

## **Medicinal Properties of Anogeissus latifolia**

Guna (Qualities) - Laghu (light), Roksa (Dry)

Rasa (Taste) - Kashaya (Astringent)

Vipaka - Katu (Pungent after digestion)

Veerya (Potency) - Sheeta (Cold)

Effect on Tridosha - Kapha Pitta hara (Bring down the alleviated Kapha and Pitta dosha)

**Part used** - Heart wood, Exudate and Bark

## **Dosage, how to use:**

Its heart wood / bark decoction (Kashaya) is used in the dose of 50 - 100 ml in divided dose per day

Exudate - 1 - 2 g

## **Chemical constituents of Anogeissus latifolia:**

The leaves, bark and heart wood contain quinic and shikmic acids. The leaves also contain gallotannin and tannin. The bark of the tree contains 12 - 18% tannins. Heartwood of the tree contains gallic acid, ellagic acid, its derivatives quercetin and myricetin. The gum is mainly the calcium salt of a complex high

molecular weight polysaccharic acid i.e ghattic acid. The gum of the tree is used as a substitute of Gum Arabic.

धवो धृढो नन्दितकः शकटाक्षो भरोद्वहः ।

कषायमधुरत्वचः स्थिरो गौरो धुरन्धरः ॥

धवस्तु तुवरः शीतो मधुरो मेहपाण्डुहा ।

कफपित्तहरं तस्य फलं स्वादु कषायकम् ॥

हिमं रूक्षं गुरु स्तम्भि वातलं कफपित्तजित् । कैयदेवनिघण्टु ओषधिवर्ग

धवो धटो नन्दितरुः स्थिरो गौरो धुरन्धरः ।

धवः शीतः प्रमेहार्शःपाण्डुपित्तकफापहः ।

मधुरस्तुवरस्तस्य फलञ्च मधुरं मनाक् ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - वटादिवर्ग

धवो दृढतरुर्गौरः कषायो मधुरत्वचः ।

शुक्लवृक्षः पाण्डुतरुर्धवलः पाण्डुरो नव ॥

धवः कषायः कटुकः कफघ्नोऽनिलनाशनः ।

पित्तप्रकोपणो रुच्यो विज्ञेयो दीपनः परः ॥ राजनिघण्टु प्रभद्रादिवर्ग

dhavo dhṛḍho nanditakaḥ śakaṭākṣo bharodvahaḥ ।

kaṣāyamadhuratvacaḥ sthiro gauro dhurandharaḥ ॥

dhavastu tuvaraḥ śīto madhuro mehapāṇḍuhā ।

kaphapittaharaṃ tasya phalaṃ svādu kaṣāyakam ॥

himaṃ rūkṣaṃ guru stambhi vātalaṃ kaphapittajit |  
kaiyadevanighaṇṭu oṣadhivarga  
dhavo dhaṭo nanditaruḥ sthiro gauro dhurandharaḥ |  
dhavaḥ śītaḥ pramehārśaḥpāṇḍupittakaphāpahaḥ |  
madhurastuvarastasya phalañca madhuraṃ manāk ||  
bhāvaprakāśa - pūrvakhaṇḍa - miśraprakaraṇa - vaṭādivarga  
dhavo dr̥ḍhatarurgauraḥ kaṣāyo madhuratvacaḥ |  
śuklavrkṣaḥ pāṇḍutarurdhavalah pāṇḍuro nava ||  
dhavaḥ kaṣāyaḥ kaṭukaḥ kaphaghno'nilanāśanaḥ |  
pittaprapakoṇo rucyo vijñeyo dīpanaḥ paraḥ || rājanighaṇṭu  
prabhadrādivarga

### **Uses of Axle wood tree:**

- The powder of the bark of *Anogeissus latifolia* is applied externally as paste to treat wounds and localized swelling.
- The decoction of the bark or heartwood of *Anogeissus latifolia* is given in a dose of 50 - 60 ml to treat diarrhea, bleeding piles.
- The decoction of the plant *Dhava* is given to treat diabetes in a dose of 40 - 5 ml per day in divided dose.
- The exudate of the plant *Anogeissus latifolia* is mixed with water and given in conditions if patient is suffering from scorpion bite or spider bite.



- The decoction of the plant is given in a dose of 60 - 70 ml to treat skin diseases and jaundice.

### **Traditional uses:**

Ruchya - improves taste, relieves anorexia.

Deepana - improves digestion strength

Indicated in -

Meha - diabetes, urinary tract disorders

Pandu - anemia

Arsha - haemorrhoids

Fruit is sweet, astringent, coolant, dry, heavy to digest,

Stambhi (Can cause constipation), can increase Vata Dosha and relieve Kapha and Pitta Dosha.

**No adverse reaction** has been seen or reported during the usage of this herb.

Care should be exercised in using this in a patient with constipation.

### **Important formulations containing Dhava:**

**Ayaskriti:** It is an Ayurvedic preparation in the form of thick liquid which can be used to treat anemia, skin diseases, diabetes, patients having low body weight. Iron in bhasma form is the main ingredient.

**Asanadi kashayam:** It is an Ayurvedic medicine in decoction form, given in the treatment of diabetes, skin diseases and obesity.

**Nyagrodadi choorna:** It is a herbal powder useful to treat urinary disorders, diabetes, diabetic carbuncle.

**Bala oil:** It is an oil, used for external application in the treatment of vata dosha like pain in the joints and muscles. The oil is also given orally to treat cough, asthma, disorders of spleen.

### **Research articles related to Dhava:**

**Antimicrobial effect** - Dried powdered barks of the plant *Anogeissus Latifolia* was extracted with hydro - alcohol and was evaluated for anti - microbial activity against gram positive and negative bacteria. The study concluded that the powder of the plant is effective against all type of bacteria except E - coli.

**Healing potential of *Anogeissus Latifolia*** - The extract of the plant *Anogeissus Latifolia* showed acceleration of the healing of the wound area by decreasing the surface of the wound area and increasing the tensile strength.

**Anti - diabetic activity:** The methanolic extract (300 mg/kg) of the plant *Anogeissus Latifolia*, for 21 days, showed reduction in blood glucose level in rats. The extract has reduced the level of serum cholesterol, triglycerides, creatinine, and urea.

### **Classical Categorization**

Sushruta - Salasaradi gana, Muskakadi gana

Vagabhata - Asanadi gana , Muskakadi gana

Bhavaprakasha - Vatadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Prabadradi varga

**Scientific Classification:**

Kingdom: Plantae

(unranked): Angiosperms

(unranked): Eudicots

(unranked): Rosids

Order: Myrtales

Family: Combretaceae

Genus: Anogeissus

Species: *A. latifolia*

## **15. Eucalyptus oil: Nilgiri Tel Benefits, How To Use, Dose, Side Effects**

Eucalyptus oil used in the present ayurvedic pharmaceutical industries for the treatment of nasal congestion, arthritis pain relief etc.



Botanical name - Eucalyptus globulus Labill

Family - Myrtaceae

### **Names in different languages:**

Hindi Name - Neelgiri

English Name - Tasmanian blue - gum eucalyptus

Telugu name - Neelagiri chettu

Kannada name - Neelagiri

Many of the Indian languages use the word 'Neelagiri' to describe this tree.



This tree is a native of Australia. In India, it is grown in the Neelagiri hilly regions of South India; hence the name Neelagiri. The tree grows up to a height of 50 - 70 m with straight trunk. A bluish colored exudate is found in the bark of the tree if a slight cut is made. The root of the tree is purgative in nature. There are about [700 species of eucalyptus](#) found around the world.



### **Sanskrit Synonyms:**

Sugandha patra - Pleasant smell of the leaves

Neela niryasa - Bluish colored exudate

Harita parna - The leaves are always green colored

Tailaparna - The leaves contain oil



### **Properties -**

Guna (Qualities) - Laghu ( Light to digest), Snigdha ( Unctuous)

Rasa (Taste) - Katu (Pungent), Tikta (Bitter), Kashaya  
(Astringent)

Vipaka - Katu (Undergoes pungent taste conversion after digestion)

Veerya (Potency) - Ushna (Hot)

Effect on Tridosha: Karma - Kapha - pitta hara (reduces vitiated kapha and pitta dosha),

Balya (Provides Strength),

Vedanahara (pacifies pain)



**Parts used:**

Leaves, Oil extracted from the leaves and tree, Exudate

**Dose:**

Leaf Powder - 1 - 2 g

Exudate - 1 - 2 g

Cold infusion - 20 - 30 ml

Oil - 2 - 4 drops

**Chemical composition:**

Eucalyptus globulus is the main commercial source of

eucalyptus oil; yield is 2.12%; 1, 8 - cineole exceeds 70%. Several potent euglobals are isolated from the leaves and flower buds. These compounds inhibition of TPV induced Epstein Barr Virus activation. Phloroglucin derivatives, isolated from the leaves, show better anti - inflammatory activity than indomethacin. Natural anti - oxidants are also found in the plant. The leaves and bark also contain Dihydroflavonol, Gallotannins, p - coumaric acid and cinnamic acid.



### **Uses of Tailaparni:**

- The oil extracted from the leaves of the eucalyptus plant is rubbed gently to relive pain in the joints, muscles and relax the affected area.
- The eucalyptus oil is added with gels, ointments and commercially manufactured as pain balms or pain reliving oil.



- The steam of the oil is inhaled to get relief from nasal congestion during cold, diseases of the lungs, cough.
- Enema is given from the oil of eucalyptus to treat patients suffering from intestinal worms.
- The exudate of the eucalyptus plant is mixed with water and given to treat dysentery and irritable bowel syndrome.
- The powder of the dried leaves of eucalyptus is burnt and the smoke coming from the burnt leaves is exposed to wounds having pus to relieve pus and pain from such wounds.
- Cold infusion prepared from the leaves of eucalyptus is given in a dose of 30 - 40 ml, in divided dose, to treat fever.

तैलपर्णः सुगन्धाढ्यपत्रो हरितपर्णकः ।

सृजति क्षतमात्रेण नीलनिर्यास इत्यासौ ॥

हरित्पणस्तैलपर्णो तैलपर्णक इत्यपि ।

तैलपर्णः लघु स्निग्धः कटुतिक्तकषायकः ।

वीर्योष्णः कफवातघ्नः पूतिजन्तुहरः स्मृतः ॥

जीर्णकासे प्रतिश्याये स्वरभेदे च शस्यते । (द्र. वि.)

तैलपर्णः कटुस्तिक्तः कषायोष्णो लघुस्मृतः ।

दीपनः पाचनो हृद्यो मूत्रलो ज्वरनाशकः ॥

जीर्णकासशिरःशूल कफदौगन्ध्यनाशनः ।

पूयमेह क्षयश्वास तन्तुकृमि विकारनुत् ॥

अग्नीमान्द्य प्रतिश्याय वस्तिरोगप्रवाहिकाः ।

स्वरभेद यकृत्प्लीह हृद्गदांश्च विनाशयेत् ॥ PV Sharma

हरिद्रुमो ज्वरहरः कीटमर्दश्च तिक्तकः ॥

कफपित्तहरस्तिकः सुगन्धः पूतिनाशनः ।

बलप्रदो रुचिकारी क्षताक्षीणविनाशनः ॥

जीर्ण दुर्बाष्प विषमज्वरहृत् कर्णशूलनुत् ।

तैलं दुर्गन्धहरणं पत्रं स्वरुजापहम् ।

सम्पर्कादस्य नश्यन्ति सर्वे रोगा न संशयः ॥ (आ. वि.)

tailaparna: sugandhādhyapatro haritaparnakah |  
srjati kṣatamātreṇa nīlaniryāsa ityāsau ||  
haritpaṇastailaparḷo tailaparnaka ityapi |  
tailaparnaḥ laghu snigdhaḥ kaṭutiktakaśāyakah |  
vīryoṣṇaḥ kaphavātaghnaḥ pūtijantuharaḥ smṛtaḥ ||  
jīrṇakāse pratiśyāye svarabhede ca śasyate | (dra. vi.)  
tailaparnaḥ kaṭustiktaḥ kaśāyoṣṇo laghusmṛtaḥ |  
dīpanaḥ pācano hr̥dyo mūtralo jvaranāśakah ||  
jīrṇakāsaśiraḥśūla kaphadaugandhyanāśanaḥ |  
pūyameha kṣayaśvāsa tantukṛmi vikāranut ||  
agnīmāndya pratiśyāya vastirogapravāhikāḥ |

svarabheda yakṛtplīha hṛdgadāṃśca vināśayet || PV Sharma  
haridrumo jvaraharaḥ kīṭamardaśca tiktakaḥ ||  
kaphapitaharastikaḥ sugandhaḥ pūtināśanaḥ |  
balaprado rucikārī kṣatākṣīṇavināśanaḥ ||  
jīrṇa durbāṣpa viṣamajvarahr̥t karṇaśūlanut |  
tailaṃ durgandhaharaṇaṃ patraṃ rsvarujāpaham |  
samparkādasya naśyanti sarve rogā na saṃśayaḥ || (ā. vi.)

### **Traditional uses and qualities of Neelgiri:**

Laghu - light to digest

Snigdha - unctuous, oily

Pootihara - relieves bad smell

Deepana - improves digestion strength

Pachana - Digestive, relieves Ama Dosha

Hrudya - acts as cardiac tonic, congenial for heart

Mutrala - diuretic

### **Traditional Indications of Nilgiri Tel:**

Jantu - worm infestation

Jeerna Kasa - cough, cold

Pratishyaya - running nose, coryza

Svarabheda - hoarseness of voice

Jwara - fever

Shirashoola - headache

Pooyameha - Pyuria

Kshaya - depletion of body tissues, weight loss, tuberculosis

Shwasa - asthma and chronic respiratory disorders

Agnimandya - low digestion strength

Bastiroga - Urinary tract disorders

Karnashoola - Earache

Ruja - pain

### **Side effects of Eucalyptus oil:**

Nausea, stomach irritation are seen in some people, especially on long term usage or use in higher doses.

### **Research articles related to Tailaparni:**

**Anti bacterial effect of eucalyptus:** The results obtained from the study showed that essential oil of the leaves of *globulus* has antimicrobial activity against gram negative bacteria (*E. coli*) as well as gram positive bacteria (*S. aureus*). The encouraging results indicate the essential oil of *E. globulus* leaves might be exploited as natural antibiotic for the treatment of several infectious diseases caused by these two germs, and could be useful in understanding the relations between traditional cures and current medicines.

Essential oils (EO) of eucalyptus (*Eucalyptus globulus*), thymus (*Thymus capitatus* L.) pirul (*Schinus molle* L.) were evaluated for their efficacy to control *Aspergillus parasiticus* and *Fusarium moniliforme* growth and their ability to produce mycotoxins.

The IC<sub>50</sub> was used to evaluate spore germination kinetic and

mycotoxin production. Also, spore viability was evaluated by the MTT assay. All EO had an effect on the radial growth of both species.

### **Formulations containing Eucalyptus:**

. However the oil of the eucalyptus plant is used in ayurvedic pain balms and oils to treat joint pain, muscle pain, headache. The oil is also used as nasal drops for nasal decongestion during cold and cough.

Used in gels and pain relief oils like - [Jointcare gel](#), Panchgun Tel

Used in cough syrups like - [Zeal Cough Syrup](#).

### **Scientific classification:**

Kingdom: Plantae

(unranked): Angiosperms

(unranked): Eudicots

(unranked): Rosids

Order: Myrtales

Family: Myrtaceae

Subfamily: Myrtoideae

Tribe: Eucalypteae

Genus: Eucalyptus L'Hér.

## **16. Indian Oak Tree: *Barringtonia acutangula* Uses, Research, Side Effects**

Hijjala - *Barringtonia acutangula* Gaertn. is an Ayurvedic herb used for the treatment of fever, diarrhea, intestinal worm, cough, dyspnea, and cases of poisoning.

**Botanical name** - *Barringtonia acutangula* Gaertn.

**Family** - Lecythidaceae



## **Hijjala - Names in different languages:**

English name - Indian oak tree, Mango - pine, Barringtonia,  
Freshwater Mangrove, Indian Oak, Indian Putat

Hindi name - Samudraphal

Kannada name - Samudraphala

Bengali name - Hijjala

Gujarati name - Samudraphala

Telugu name - Kanagi

Tamil name - Samutrapallam, ram, Kadambu, Kadappai,  
samudra pazham

Oriya name - Nijhira

Marathi name - Tiwar, Newar, Sathaphala, Samudraphala



## **Sanskrit Synonyms of Freshwater Mangrove:**

Samudraphala (Found along the sea coast), Nichula, Vidula

Hijjala is a medium sized tree growing to a height of 10 - 12 m

and up to 2 m in diameter. It is found all over India, Srilanka and other south east Asian countries. The bark of the tree is dark brown in color. The fruit of the tree resembles wild cardamom pods.



### **Medicinal properties of Hijjala:**

Guna (Qualities) - Laghu (light to digest), Ruksha (Dry in nature)

Rasa (Taste) - Tikta (Bitter), Katu (Pungent)

Vipaka - Katu (Undergoes pungent taste conversion after digestion)

Veerya (Potency) - Usna (Hot)

Karma - Vata hara (Subsides the vitiated Vata dosha),

Vishaghna (controls the visha in the body)

**Part used:** Fruit, Leaf, Steam bark, Root



## **Dosage of Indian Oak Tree:**

Fruit powder 0.5 - 1 g

Fresh juice 10 - 20 ml (3 - 6 g for emesis - Vamana

Panchakarma therapy)



## **Chemical composition of Barringtonia acutangula :**

The bark of Barringtonia acutangula contains about 16% tannins and opoid painkillers. It also contains 3,3' - dimethoxy ellagic acid, dihydromyticetin, gallic acid, bartogenic acid and stigmasterol, triterpenoids.

The fruits contain triterpenoid sapogenins which are haemolytic in nature. It also contains glucoside, barringtonic acid and barringtogenol.



### **Uses of Hijjala:**

- The powder of the bark is used as 'Nasya' (Nasal errhine) in the treatment of headache.
- The seeds of *Barringtonia acutangula* is made into paste and used as collyrium in the diseases of eye.
- The plant is used for emesis and purgation in the treatment of vitiated Kapha and Pitta dosha respectively.
- The fresh juice of the leaves of *Barringtonia acutangula* is given with honey in a dose of 10 - 12 ml to treat diarrhea.
- The powder of the bark of Hijjala is given with sugar candy in a dose of 8 - 10 g to treat retention of urine.
- The root of *Barringtonia acutangula* is given in a dose of 8 - 10 g in divided dose to treat fever, splenomegaly.

- The root of the plant is given in dose of 5 - 6 g to treat cases of spider poisoning and insect bites.
- The decoction of the bark of Barringtonia acutangula is given in a dose of 40 - 50 ml in divided dose to purify blood and treat skin diseases.
- The paste of the seeds is applied to treat pain and localized swelling.
- The cold infusion of the leaves is used to treat intestinal worm in a dose of 25 - 30 ml.
- The seed extract is anti - tumor in nature.

इज्जलो हिज्जलश्चापि निचुलश्चाम्बुजस्तथा ।

जलेवेतसवद्वेद्यो हिज्जलोऽयं विषापहः ॥

भावप्रकाश - पूर्वखण्ड - मिश्रप्रकरण - गुडूच्यादिवर्ग

हिज्जलोऽथ नदीकान्तो जलजो दीर्घपत्रकः ।

नदीजो निचुलो रक्तः कार्मुकः कथितश्च सः ॥

हिज्जलः कटुरुष्णश्च पवित्रो भूतनाशनः ।

वातामयहरो नानाग्रहसञ्चारदोषजित् ॥ राजनिघण्टु - शाल्मल्यादिवर्ग

ijjalo hijjalaścāpi niculaścāmbujastathā ।

jalevetasavadvedyo hijjalo'yaṃ viṣāpahaḥ ॥

bhāvaprakāśa - pūrvakhaṇḍa - miśraprakaraṇa -  
guḍūcyādivarga

hijjalo'tha nadīkānto jalajo dīrghapatrakaḥ |

nadījo niculo raktaḥ kārmukaḥ kathitaśca saḥ ||

hijjalaḥ kaṭuruṣṇaśca pavitro bhūtanāśanaḥ |

vātāmayaharo nānāgrahasañcāradoṣajit || rājanighaṇṭu -

śālmalyādivarga

- **Formulations containing Hijjala:**

**Katakakhadiradi Kashayam:** Katakakhadiradi Kashayam is an Ayurvedic medicine, in the form of decoction, used in treating diabetes. It is also available in capsule form.

- **Maha Panchagavya Ghritam:** It is an Ayurvedic medicated Ghee which is useful for the treatment of anemia, piles, jaundice and in mental disorders like epilepsy, insanity. The formulation is used commonly for oleation before undergoing purgation therapy (Virechana).

- **Research articles on Hijjala:**

**Apoptotic induction:** Barringtonia acutangula L. was selected based on its medicinal properties, which is well documented. The plant was subjected to a series of assays to evaluate its anti - cancer potentials. The preliminary screening by NO assay and MTT assay indicated the free radical scavenging and anti - cancer activity of the plant in the methanol and ethyl acetate

extracts of *S. colais* and ethyl acetate extract of *B. acutangula* against Colon cancer cell lines Colo320. Further, DNA fragmentation assay attributed the cytotoxicity of the plant extracts to apoptosis.

- **Cure for many diseases:** This plant is traditionally used for the cure and treatment of many ailments like hemolytic disease (various diseases of blood), abdominal colic, lumbar pain, malaria, syphilis.

**Classical categorization:**

Charaka - Vamanopaga, virechaneeya

Sushruta - Urdhwabaghahara gana

Bhavaprakasha - Guduchyadi varga

Raja Nighantu - Shalmalyadi varga

**Side effects:** There are no known side effects with this herb.

**Systemic classification:**

Kingdom: Plantae

(unranked): Angiosperms

(unranked): Eudicots

(unranked): Asterids

Order: Ericales

Family: Lecythidaceae

Genus: *Barringtonia*

Species: *B. acutangula*



## **17. Henna, Mehndi Benefits, Usage, Research, Side Effects**

Madayantika - *Lawsonia inermis* Linn. is an Ayurvedic herb used for the treatment of fever, dysuria, jaundice, ulcers, bleeding disorders and skin diseases.

Latin Name - *Lawsonia inermis* Linn.

Family - Lythraceae

### **Names in different languages:**

Hindi name - Mehendi

English name - Henna, Mignonette tree

Bengali name - Mehedi

Kannada name - Manjha

Malayalam name - Mailanchi

Telugu name - Gorintaka

Tamil name - Aivanam



**Sanskrit Synonyms** - Madayanti, Mallika, Modayani

Henna is a plant found and cultivated all over India, growing up to a height of 4 - 6 m. The plant is a native of Arabia and Persia.

**Mehndi medicinal Properties:**

Rasa (taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (qualities) - Laghu (Light to digest), Ruksha (Dryness)

Vipaka - Katu (undergoes pungent taste after digestion)

Veerya (Potency) - Sheeta (Cold)

**Effect on Tridosha** - Kapha Pitta hara (reduces vitiated kapha and pitta dosha) , Kandughna (reduces itching sensation)





**Part used** - Leaf, flower, seeds

**Dosage** -

Fresh juice - 5 - 10 ml

Seed powder - 1 - 3 g

**Chemical constituents:**

The leaves of the plant *Lawsonia inermis* contain lawsone, coumarins, flavonoids, luteolin and its 7 - O - glucoside, beta sitosterol - 3 - O - glucoside. Tannin is found in all parts of the plant. The plant also contains gallic acid, glucose, mannitol and mucilage.



### **Uses of Madayantika:**

- The paste of the leaves of *Lawsonia inermis* is applied over the localized area to get relief from headache, burning sensation of the extremities and pain in the joints of the body.
- The paste of madayantika plant is applied to get relief from localized swelling, tenderness and pain.
- Gargling is done using the decoction prepared from the leaves of *Lawsonia inermis* to get relief from pain in the throat region and oral cavity.
- Cold infusion of the fruits of the plant *Lawsonia inermis* is given in a dose of 50 - 60 ml in divided dose to treat insomnia.
- The decoction of the flower of the plant is given in a dose of 40 - 50 ml in divided dose as a memory booster in persons suffering with low I.Q.

- The powder or paste of the seeds of the madayantika plant is given to treat diarrhea and irritable bowel syndrome.
- The decoction of the leaves of the plant is given in a dose of 40 - 50 ml to treat various skin diseases.
- The fresh juice of the leaves is mixed with sugar candy and given in a dose of 10 - 15 ml to treat burning micturition and pus mixed urine.
- The cold infusion of the flowers is given in a dose of about 50 - 60 ml to treat fever.
- The paste of the leaves of Lawsonia inermis is applied locally to treat skin diseases and gonorrhoea.
- Decoction from the bark of the plant is administered in patients suffering from jaundice and enlarged liver, in a dose of 50 - 60 ml in divided dose.
- The paste of the leaves is used for cosmetics - to color the hair, as a coloring agent to paint the hands and legs.
- Henna has been used since antiquity to dye skin, hair and fingernails, as well as fabrics including silk, wool and leather.

मदयन्ती लघुरुक्षा कषाया तिकशीतला ।

कफपित्त प्रशमनी कुष्ठघ्नी सा प्रकीर्तिता ॥

निहन्ति ज्वर कण्डु अतिदाहासृक् पित्तकामलाः ।

रक्तातीसार हृद्रोग मूत्रकृच्छ्रभ्रमव्रणान् ॥ द्रव्यगुणवि ज्ञान

madayantī laghurūkṣā kaṣāyā tiktaśītalā |

kaphapitta praśamanī kuṣṭaghñī sā prakīrtitā ||

nihanti jvara kaṇḍu atidāhāsṛk pittakāmalā: |

raktātīsāra hṛdroga mūtrakṛcchrabhamavraṇān ||

dravyaguṇavi jñāna

### **Indications and usage as per Ayurveda:**

Laghu - light to digest

Rooksha - dry

#### **Indicated in -**

Kushta - skin diseases

Jwara - fever

Kandu - itching, pruritis

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Kamala - Jaundice, Liver diseases

Raktatisara - Ulcerative colitis

Hrudroga - Cardiac disorders

Mutrakruchra - Dysuria

Bhrama - Delusion, Dizziness

Vrana - Ulcers, wounds

**No adverse** effects have been known about madayantika plant.



### **Formulations containing Madayantika:**

[Maha panchagavya Ghrita:](#) This is an Ayurvedic medicine in Ghee form and is given in the treatment of Apasmara (Epilepsy), Unmada (Insanity), Arshas (Piles), Pandu (Anemia). It is also given in Snehana (oleation) karma before Panchakarma procedures of Vamana and Virechana.

[Dah - Hun hot water mix:](#) Dah - Hun Hot Water Mix is used for the treatment of excess pitta in the body. It is a proprietary Ayurvedic medicine manufactured by Everest Ayurveda

pharma, Thrissur, Kerala.

Various commercially available hair coloring cosmetic products contain madayantika as an ingredient.

### **Research articles on Madayantika:**

[Anti - ulcer potential of leaves:](#) To evaluate antiulcer effects of aqueous, chloroform and ethanol extracts prepared from the henna leaves in rats employing the pylorus ligation and aspirin induced models. . The results indicated that aqueous, ethanol and chloroform extract significantly ( $p < 0.001$ ) decreased the volume of gastric acid secretions, free acidity and total acidity and ulcer index.

The antibacterial activities of hexane, chloroform, methanol extracts of the leaves *Lawsonia inermis* (Henna) was evaluated on bacterial strains like *Escherichia coli*, *Klebsiella pneumonia*, *Lactobacillus acidophilus*, *Streptococcus aureus*, *Streptococcus mutans*, *Micrococcus*, *Streptococcus salivarius*, *Bacillus subtilis*, *Staphylococcus epidermidis*, *Streptococcus gordonii*. This study conclude that the methanol extract of leaf *Lawsonia inermis* showed more significant activity against all tested bacterial organisms than that of the hexane and chloroform extracts.

[Anti microbial activity](#): The antimicrobial activity of Lawsonia inermis, Mimosa pudica, Cestrum diurnum and Solanum xanthocarpum was determined by agar disc diffusion method against five strains of microbes: Bacillus pumilus, Micrococcus luteus, Escherichia coli, Pseudomonas aeruginosa and Candida albicans. All the selected plants exhibited antimicrobial activity but the degree of their potency varied. The results showed that Cestrum diurnum and Mimosa pudica showed more antimicrobial activity as compared to Lawsonia inermis and Solanum xanthocarpum.

Scientific classification

Kingdom: Plantae

(unranked): Angiosperms

(unranked): Eudicots

(unranked): Rosids

Order: Myrtales

Family: Lythraceae

Genus: Lawsonia

Species: L. inermis

## **18. Shringataka: Trapa Bispinosa Uses, Research, Side Effects**

Shringataka - *Trapa bispinosa* Roxb. is an ayurvedic herb used for the treatment of bleeding disorders, dysuria, polyuria, oedema and also used as nutritional supplement.

Latin name - *Trapa bispinosa* Roxb., *Trapa natans*

Family - Trapaceae



### **Names in different languages:**

Hindi name - Singhada

English name - Water Chestnut or Caltrops

Bengali name - Paaniphala

Gujarati name - Sheengoda

Tamil name - Singheda

Telugu name - Patigadda

Malayalam name - Karimapolam





### **Synonyms -**

Trikonaphala - The fruit resembles triangular shape

Jalaphala, Paniyaphala - Found in water

Shringatak - Thorns resembling horns are found on the fruit

*Trapa bispinosa* Roxb. is native to India. It grows abundantly in the fresh water lakes of Kashmir, Orissa, Assam and other parts of the country. It is found as an ornamental plant in the lakes of European countries. The plant is a small shrub growing in the water and the long stems take root in the mud of the lakebeds. The fruits and the seeds are the palatable parts of the plant.



**Water chestnut medicinal qualities:**

Rasa (taste) - Madhura (Sweet), Kashaya (Astringent)

Guna (qualities) - Guru (Heavy), Ruksha (Dry)

Vipaka - Madhura (undergoes sweet taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma - Pittahara (pacifies vitiated pitta dosha), Vrushya (improves the potency)

**Part used** - Fruit pulp, Fruit powder

**Dosage** - Powder 5 - 10g



### **Chemical composition:**

The flour of the dried fruit is rich in proteins and minerals. It contains phosphorus, sulphur, calcium, sodium, magnesium, iron and potassium. The starch isolated from the flour contains 15% amylose and 85% amylopectin. Apart from these citric acid, tannins, protein fat is found in the plant.

### **Uses of Shringatka:**

- The flour of the dried fruit/ kernels of *Trapa bispinosa* is used in preparations for breakfast in India.
- The powder of dried kernel of Shringataka is given to control bleeding, treat polyuria, oedema.
- The fruit and seeds are eaten raw or cooked and consumed to treat burning sensation of the body, pacify thirst and retention of urine.

- The powder of the fruits and seed of the plant *Trapa bispinosa* is used as nutritional supplement to treat muscle weakness and to give strength to the body.
- The powder of the fruit is used regularly to improve the sexual potency.
- The powder of *Shringataka* fruit is given to treat women suffering from threatened abortion.

शृङ्गाटकं जलफलं त्रिकोणफलमित्यपि ।

शृङ्गाटकं हिमं स्वादु गुरु वृष्यं कषायकम् ।

ग्राही शुक्रानिलक्ष्मप्रदं पित्तास्रदाहनुत् ॥भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - आम्रादिफलवर्ग

शृङ्गाटकः शृङ्गरुहो जलवल्ली जलाश्रया ।

शृङ्गकन्दः शृङ्गमूलो विषाणी सप्तनामकः ॥

शृङ्गाटकः शोणितपित्तहारी लघुः सरो वृष्यतमो विशेषात् ।

त्रिदोषतापश्रमशोफहारी रुचिप्रदो मेहनदार्ढ्यहेतुः ॥राजनिघण्टु -

मूलकादिवर्ग

śṛṅgāṭakaṃ jalaphalaṃ trikoṇaphalamityapi ।

śṛṅgāṭakaṃ himaṃ svādu guru vṛṣyaṃ kaṣāyakam ।

grāhī śukrānilaśleṣmapradaṃ pittāsradāhanut ||bhāvaprakāśa -  
pūrvakhaṇḍa - miśraprakaraṇa - āmrādiphalaavarga  
śṛṅgāṭakahaḥ śṛṅgaruho jalavallī jalāśrayā |  
śṛṅgakandaḥ śṛṅgamūlo viṣāṇī saptanāmakaḥ ||  
śṛṅgāṭakahaḥ śoṇitapittahārī laghuḥ saro vṛṣyatamo viśeṣāt |  
tridoṣatāpaśramaśophahārī ruciprado mehanadārḍhyahetuḥ  
||rājanighaṇṭu - mūlakādivarga

Vrushya - aphrodisiac, improves vigor

Grahi - absorbent, useful in diarrhea, IBS

Shukraprada - increases sperm count and quality

Anila Shleshmapada - increase Vata and Kapha

Pittasra - Raktapitta - Bleeding disorders such as nasal  
bleeding, heavy periods, etc

Daha - burning sensation, as in gastritis, neuropathy,  
burning sensation in eyes etc

### **Ayurvedic Indications:**

Shrama - tiredness, fatigue

Shopha - inflammation

**Adverse effect:** No adverse effect has been seen or reported  
after using Shringataka for medicinal use.

### **Formulations containing Shringataka (Singhada:**

**Amritaprasha Ghrita:** It is an Ayurvedic medicine in Ghee form.

It is used as medicine and also in preparatory procedure called

snehakarma for the treatment of burning sensation, fever, bleeding disorders, cough, asthma, weakness and gynecological diseases.

**Pugakhanda:** It is an Ayurvedic medicine in semi - solid form and is given to treat nausea, abdominal pain, dizziness, gastritis and dyspepsia.

**Sowbhagyashunti:** It is an Ayurvedic medicine in semi - solid form given for the treatment of indigestion, diarrhea. It is also given post - delivery period.



### **Research articles related to Trapa Bispinosa:**

**Nutritional and Anti oxidant property:** Singharekaatta (water caltrop flour) is used for fasting in many Indian religious rituals and for culinary purpose. In the present work, an attempt had been made to study different characteristics of the fruit so as

to understand its potential for value addition and nutraceutical development. This work demonstrated that fruit of *Trapabispinosa* contains higher protein, carbohydrates, phenolics and antioxidant property.

**Anti diarrheal, anti - oxidant and analgesic property:** The ethanolic extract of fruits of *Trapabispinosa* Roxb (Family: Trapaceae) was screened for its antidiarrheal, analgesic and antioxidant activities. The fruit extract showed a significant ( $P < 0.01$ ) antidiarrheal activity against castor oil induce diarrhea in mice in which it decreased the frequency of defecation and increased the mean latent period at the dose of 500 mg/kg body weight. In acetic acid induced writhing test the extract, at the dose of 500 mg/kg, exhibited a maximum of 50.17% inhibition ( $P < 0.01$ ) of writhing reflex compared to the reference drug diclofenac sodium 55.22% ( $P < 0.01$ ). The antioxidant property of the extract was assessed by 1, 1 - diphenyl - 2 - picryl hydrazyl (DPPH) free radical scavenging assay. The extract showed antioxidant activity ( $IC_{50}$  about  $\sim 0.8$ g/ml) which was comparable to standard drug ascorbic acid ( $IC_{50}$  about  $\sim 10$ g/ml). The results tend to suggest that the extract might possess some chemical constituents that are responsible for antidiarrheal, analgesic and antioxidant activities.

**As nutrient for humans:** Nutrient composition of water chestnuts revealed moisture 62.5, ash 1.04, crude fiber 2.13%,

total soluble sugar 0.92%, reducing sugar 0.33%, nonreducing sugar 0.59%, starch 8.7%, lipid 0.84%. One hundred gram of green variety contained water soluble protein 0.275 mg, beta - carotene 60 microg, vitamin - C 1.1 mg, and total phenol 0.5 mg. The minerals contents of green variety were potassium 5.22%, sodium 0.64%, calcium 0.25%, phosphorus 6.77%, sulphur 0.38%, and iron, copper, manganese, and zinc 200, 430, 90, and 600 ppm, respectively. The red variety contained moisture 62.7%, ash 1.30%, crude fiber 2.27%, total soluble sugar 0.90%, reducing sugar 0.30%, non - reducing sugar 0.60%, starch 8.2%, and lipid 0.83%. The red variety contained water soluble protein 0.251 mg, beta - carotene 92 microg, vitamin - C 0.9 mg, and total phenol 0.60 mg per 100 g. The red variety contained potassium 5.32%, sodium 0.59%, calcium 0.26% phosphorus 6.77%, sulphur 0.32%, iron 200 ppm, copper 450 ppm, manganese 110 ppm, and zinc 650 ppm. The free amino acids, glutamic acid, tryptophan, tyrosine, alanine, lysine, and leucine were commonly found in both varieties. In addition, green and red varieties contained cysteine, arginine and proline, and glutamine and asparagines, respectively. Thus, the present study sheds light on the nutrient contents of the two varieties of water chestnuts and suggests that water chestnuts may play a crucial role in human nutrition.



## **Scientific classification**

Kingdom: Plantae

Order: Myrtales

Family: Lythraceae

Subfamily: Trapoideae

Genus: Trapa

## **Classical categorization:**

Bhavaprakasha - Amradi Phalavarga

Rajanighantu - Mulakadi Varga

## **19. Saptachakra: Qualities, Uses, Research, Medicines**

Saptachakra is an Ayurvedic herb which is used to treat obesity, piles, dysmenorrhea, hepatomegaly and localized swelling associated with pain.

Latin name - *Salacia reticulata* Linn., *Salacia chinensis*

Family - Hippocrateaceae

### **Names in different languages:**

Hindi name - Saptarangi

English name - Chinese salacia, Lolly berry,

Kannada name - Ekanayaka, Ekanayakana Balli

Bengali name - Dimal

Marati name - Ingali

Goa / Konkani name - Satagunda

Tamil name - Koranti

Malayalam name - Cheru kuranti



## **Synonyms -**

Svarna mula - The bark of the root is golden colored

Saptachakra - When the root is cut it shows 7 wheel like structures

Saptachakra is a big climbing shrub or small tree growing wildly through - out India. The flowers are pale yellow in color. The fresh root exhibit different colors; hence the Hindi name Saptarangi.

## **Properties:**

Rasa (taste) - Kashaya (Astringent), Tikta (Bitter)

Guna (qualities) - Laghu (light to digest), Ruksha (dry), Teekshna (strong)

Vipaka - Katu (undergoes pungent taste after digestion)

Veerya (potency) - Ushna (Hot)

Karma - kapha pitta hara (reduces vitiated kapha and pitta dosha)



**Part used** - Root bark, Root

**Dosage** Powder - 1 - 3 g

Decoction - 50 - 100 ml

**Chemical composition:**

The root bark contains proantho - cyanidins, consisting of monomeric leucopelargonidin, triterpenoids, mangiferine, phlobatannin and glucosidal tannins. The stem of the plant contains gutta, dulcitol and proanthocyanidin consisting of dimer of leucopelargonidin.

**Use of Saptachakra:**

- The paste of the root of *Salacia reticulata* is applied locally to relieve swelling and pain.
- The powder of the root of saptachakra is given in a dose of 5 - 6 g to treat dysmenorrhea.

- The powder of the root is given in a dose of 4 - 5 g to treat diabetes.
- The decoction of the root bark is given in a dose of 40 - 50 ml in divided dose to control excessive sweating.
- The root paste of the plant *Salacia reticulata* is applied over the external piles to treat it.
- The decoction of the plant is given as a uterine stimulant in a dose of 25 - 30 ml daily.

**Precaution:** The decoction of the plant *saptachakra* may cause abortion if given in a large dose or for long duration of time. Hence the intake of the herb should be avoided during pregnancy.



### **Formulations containing Saptachakra:**

**Paranthyadi tailam:** It is an ayurvedic medicated oil used externally in the treatment of spider bite, dermatitis, insect

bites.

**Himasagara tailam:** It is an ayurvedic oil applied externally to treat neuro muscular diseases, frozen shoulders, muscle emaciation, burning sensation of the body. It is also used for shiro dhara to treat insomnia.

**Katakakhadiradi kashayam:** This medicine is available in decoction and capsule form to treat diabetes.

**Niruryadi gulika:** This is a tablet used for the treatment of diabetes and is available in tablet form.

**Glucostat capsule:** This is a proprietary ayurvedic medicine used in the treatment of diabetes. It acts as pancreatic stimulant and insulin sensitizer.

### **Research articles related to Saptachakra:**

**Anti - obesity effect:** The extracts of *Salacia reticulata* (*Salacia* extract), a plant that has been used for the treatment of early diabetes, rheumatism and gonorrhoea in Ayurveda, have been shown to have an anti - obesity effect and suppress hyperglycemia. In this study, the effects of *Salacia* extract on various symptoms of metabolic disorder were investigated and compared using these TSOD mice and non - obese TSNO mice.

**Anti - diabetic and Anti - hyperlipidemic effect:** In human studies, *Salacia* extracts have been shown to decrease plasma glucose and insulin levels, decrease HbA1c, and modulate serum lipid levels with no adverse effects being reported.

Similar results have been demonstrated in rat and mouse models as well as *in vitro* systems.

**Anti diabetic and Anti obesity effect:** *Salacia* spp belong to family Celastraceae have prominent place in plant based medicine because it is used in management of diabetes and obesity. *Salacia* spp contain salacinol, katnanol, mangiferin are active principles which inhibit  $\alpha$ -glucosidase enzyme and slow down the absorption of glucose in intestine. *Salacia* species possess many therapeutic properties like anti - obesity, anti - diabetic etc.

The root extract of *Salacia reticulata* Wight (family: Celastraceae) is used in Sri Lanka by traditional practitioners as a herbal therapy for glycemic control even during pregnancy. It is recognized that some clinically used anti - diabetic drugs have harmful effects on pregnancy but the effects of the *S. reticulata* root extract on reproductive outcome is unknown and deserves examination. The authors of this article determined the effects of the *S. reticulata* root extract on the reproductive outcome of Wistar rats (250 - 260 g) when administered orally (10 g/kg) during early (days 1 - 7) and mid - (days 7 - 14) pregnancy. The root extract significantly ( $P < 0.05$ ) enhanced post - implantation losses

We conclude that the *S. reticulata* root extract can be

hazardous to successful pregnancy in women and should not be used in pregnancy complicated by diabetes.

**Scientific classification**

Kingdom: Plantae

Order: Celastrales

Family: Celastraceae

Genus: Salacia

Species: *S. reticulata*



## **20. Papaya: Benefits Of Leaves, Latex, Fruit, Remedies, Side Effects**

The leaves, latex (mix exudate), seed and fruits of Papaya are extensively used in the treatment of pain, bleeding piles, constipation, dysmenorrhea, poisonous bites of insects and skin diseases.

**Botanical Name** - Carica papaya Linn.

**Family** - Caricaceae

### **Names in different languages:**

Hindi name - Papita, andakharbuja, papaya, papeetha

English name - Papaya fruit, melon tree, papain, papaya, paw paw.

Bengali Name - Papeya

Kannada Name - Parangimara, akka thangi hannu, bappangaayi, papaya, peragi, parangi hannu mara, poppaya, Pappayi hannu

Telugu name - Boppayi, bapaipundoo, bappayi, boppayi, poppaya.

Marathi name - papaya, popai.

Tamil Name - Pappali, pappali phalam, parangi aamanakku, poppayi, cittamukkikamaram, kapakkini maram.

Malayalam name - apappaya pazham, kaplam, kappalam, karmmos, papaya pazham.

Urdu name - arand kharbuza.

Persian name - aanabahe - hindi.

Arabic name - aanabahe - hindi.



### **Synonyms of Eranda Karkati:**

Nalaparni - The stalk of leaves are cylindrical.

MadhuKarkati, Erandachirbhata

Papaya plant is a native of West Indies and Central America. It is now cultivated all over India in moderate climate. It is a small tree growing to a height of 4 - 6 m. The ripened papaya fruit is well known for its health benefits.

### **Papita medicinal Properties**

Rasa (Taste) of leaf - Katu (Pungent), Tikta (Bitter)

Guna (Properties) - Laghu (Light for digestion), Ruksa (Dry), Tikshna (Pungent)

Vipaka - Katu (Undergoes to pungent taste conversion after

digestion)

Veerya (Potency) - Ushna (Hot)

Karma - Kaphavatahara (pacifies Kapha and Vatadosha),

Hridya( Benefits the heart)

**Part used** - Fruit, Leaf, Latex, Seed

**Dosage** - Leaf infusion 40 - 80 ml

Seed powder - 0.5 - 1g

Latex - 3 - 6 g

**Chemical composition:**

The green parts of the plant and seeds of the papaya contain an alkaloid carpaine. The seeds also contain carpasamine. The latex of the plant contains papain, chymopapain and pseudocarpaine. The ripened fruit of papaya contains vitamin A, thiamine, riboflavin, niyacin and vitamin C. The latex of the unripe fruit is collected by giving a cut and the collected latex is dried under shade.

papaya contains the digestive enzyme, papain. It is used in treating sports injuries, other causes of trauma, and allergies.

Being rich in Vitamin A, pro - vitamin A carotenoid

phytonutrients and C, Papaya fruit is an excellent anti oxidant.

**Uses of Erandakarkati:**

- The milk from the raw papaya is applied over mouth ulcer to treat it.

- The milk of the raw papaya is applied over insect bites, scorpion bitten area to relieve the pain.
- The cold infusion prepared from the leaves of papaya is given in a dose of 20 - 30 ml to treat local swelling, fever, difficulty during micturition.
- The ripened fruit of papaya is consumed to relieve constipation.
- The raw papaya is consumed as vegetable to treat intestinal worm, piles and hepatomegaly.
- The milk from raw papaya is applied over wounds and bleeding piles to treat it.
- The leaves of the papaya plant are slightly heated and applied locally over the part of the body to relieve pain and swelling.
- The milk of raw papaya is applied locally to relieve skin diseases like eczema, ringworm.

The papaya fruit is consumed to strengthen the muscles of the heart.

कासश्चसयकृत्प्लीहोदरगोगविनाशिनी ।

मन्दाग्नियुशोथघ्नीविषपत्राप्रकीर्ति ॥

(वनौषधिशस्त्रसंदिग्धनिर्णय)

एरण्डकर्कटीलघ्वीतीक्ष्णाकट्वीसतिक्का ।

वीर्योष्णापाचनीहृद्याग्राहिणीकफवातनुत् ॥ Dravyaguna Vijnana

kāsaśvasayakṛtplīhodaragogavināsinī |

mandāgniyuśothaghnīviṣapatrāprakīrti||

(vanauśadhiśāstrasamḍigdhanirṇaya)

eraṇḍakarkaṭīlaghvītīkṣṇākaṭvīsatiktakā |

vīryoṣṇāpācanīhr̥dyāgrāhiṇīkaphavātanut || Dravyaguna

Vijnana

Hrudya - cardiac tonic, good for heart

Grahi - absorbent, bowel binding, useful in IBS, diarrhoea

Karma: Appeases the burning sensation within the body and body parts; controls the fever. Controls the raktapittaM condition [bleeding diathesis].

Action on Doshās: Appeases the pitta and rakta doShAs.

### **Ayurvedic Indications:**

Kasa - cold, cough

Shwasa - asthma, respiratory disorders involving difficulty in breathing

Yakrutodara - Liver enlargement, hepatomegaly

Pleehodara - splenomegaly, enlarged spleen

Mandagni - low digestion strength

Shotha - oedema, swelling, inflammatory conditions.

Visha - toxic conditions

## **How to consume Papaya?**

Its fruits are consumed readily.

Fruits are added as an ingredient of fruit salad, along with banana, apple etc.

Fruits are sprinkled with black pepper powder for added taste.

Its fruit juice is prepared by adding few cardamoms.

**Papaya Adverse effect:** Pregnant women should not consume raw papaya as the milk present in the raw papaya may cause abortion. In the folklore practice, raw papaya is used to cause abortion.

## **Formulations containing Erandakarkati:**

**Ashmariharakashaya:** It is an ayurvedic medicine in decoction form given to treat conditions of urinary calculi and the pain arising due to it.

**Alopazyme syrup:** It is a proprietary Ayurvedic medicine manufactured by ALOPA HERBALS pharmaceuticals, Bhuvanagiri, Bangalore. It is used in the treatment of all types of digestive problems.

**Caripill:** It is a tablet manufactured by micro labs, Bangalore, to increase the platelet count in patients suffering from dengue fever.

**Uplat capsules:** It is a capsule to treat low platelet count in the body.

## **Research work on Caricapapaya:**

**Improves platelet count:** The study was conducted to investigate the platelet increasing property of *Carica papaya* leaves juice (CPLJ) in patients with dengue fever (DF). There was a significant increase in mean platelet count observed in the intervention group but not in the control group 40 hours since the first dose of CPLJ. Comparison of mean platelet count between intervention and control group showed that mean platelet count in intervention group was significantly higher than control group after 40 and 48 hours of admission.

**Anti - inflammatory activity:** The anti - inflammatory activity of an ethanolic extract of *Carica papaya* leaves was investigated in rats using carrageenan induced paw oedema, cotton pellet granuloma and formaldehyde induced arthritis models. The results show that the extracts significantly ( $p < 0.05$ ) reduced paw oedema in the carrageenan test. Likewise the extract produced significant reduction in the amount of granuloma formed from  $0.58 \pm 0.07$  to  $0.22 \pm 0.03$  g. In the formaldehyde arthritis model, the extracts significantly reduced the persistent oedema from the 4th day to the 10th day of the investigation. The extracts also produced slight mucosal irritation at high doses. The study establishes the anti - inflammatory activity of *Carica papaya* leaves.

**Potential medicinal benefits:** The latex from unripe papaya fruit contain enzymes papain and chymopapain; other components include a mixture of cysteine endopeptidases, chitinases and an inhibitor of serine protease. Phytochemical analysis of C.papaya leaf extract revealed the presence of alkaloids, glycosides, flavanoids, saponins, tannins, phenols and steroids. This review focuses on different properties of papaya such as antioxidant and free radical scavenging activity, anticancer activity, anti-inflammatory activity, treatment for dengue fever, anti-diabetic activity, wound healing activity and anti-fertility effects.

### **Scientific classification of Papaya**

Kingdom: Plantae

(unranked): Angiosperms

Order: Brassicales

Family: Caricaceae

Genus: Carica

Species: C. papaya

Author: Dr.B.K.Prashanth M.D (Ayu), Ph.D

E mail: drprashanthbk@gmail.com



## **21. Cucumber: Cucumis Sativus Benefits, Research, Remedies, Side Effects**

Cucumber is widely used in Ayurvedic treatment for difficulty in urination, excessive thirst, headache, insomnia etc. Holds a good promise in liver cancer treatment. It is called Trapusha in Sanskrit.

Botanical Name - Cucumis sativus Linn.

Family - Cucurbitaceae

### **Cucumber - names in different languages:**

Hindi name - Khira, Kheera

English name - Cucumber, Garden cucumber

Bengali Name - Shasha

Kannada Name - Southakai

Malayalam name - Vellarikka

Gujarati Name - Tansali, Kaakdi

Tamil Name - Muhivetti, Keerai Kai/Vellari kai

Telugu name - Ujakaipa



## **Synonyms -**

Sudhavasa - The pulp is of white color

Kantalu, Kantaki phala - The wild variety of the fruit has small spikes around it

Susheetala - natural coolant fruit

Peetapushpi - having yellow coloured flower

Deerghaparni, Karkatika, Karkati, Bahuphala, Koshaphala, Tundilaphala, Muni

Trapusha is a creeper found in the wild and also abundantly cultivated all over India for its use as vegetable. The cucumber is pale green in color with many seeds inside the fruit, which are pointed at both the ends.



## **Trapusa - Cucumis sativus medicinal properties**

Rasa (Taste) - Madhura (Sweet)

Guna (Qualities) - Laghu (Light), Ruksha (Dry)

Vipaka - Madhura (undergoes sweet taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Action) - Pitta hara (reduces the vitiated pitta), Mutrala (helps in easy urination)

**Part used** - Fruit, seed

**Dosage** -

Fresh juice 25—50 ml

Seed powder 3 - 6 g.



**Chemical constituents:**

Cucumber contains rutin, proteolytic enzymes, ascorbic acid oxidase, pristane, B - sitosterol, clerosterol, succinic and malic dehydrogenases. The seeds contain glucosides. The leaves of the plant contain cucurbitasides B and C.

Cucumber skin is a rich with Vitamin A and C. Hence it is a very good anti oxidant. Its skin also contains folic acid.



### **Uses of Trapusha:**

- Cucumis sativus is used as a vegetable all over India, as part of cuisine.
- The fruit of the plant is consumed to relieve thirst, burning sensation all over the body.
- The juice of cucumber is consumed to relieve burning micturition.
- The seeds of cucumber is added with water and drunk to relieve thirst.
- The powder of the dried seeds is taken in a dose of 3 - 5 g to relieve general weakness of the muscles.
- Medicated oil prepared using seeds of cucumber is prepared and applied over the scalp to get relief from insomnia, headache.

- The cucumber fruit slice is applied over the head to get relief from disturbed sleep, insomnia.
- The cucumber slices are given along with boiled rice or rice gruel in the morning to treat urinary tract infections and calculi.

त्रपुसैर्वारुकं स्वादु गुरु विष्टम्भि शीतलम्॥

मुखप्रियं च रूक्षं च मूत्रलं त्रपुसं त्वति| Charaka Sutrasthana

27/110

बालं सनीलं त्रपुसं तेषां पित्तहरं स्मृतम् ।

तत्पाण्डु कफकृज्जीर्णमम्लं वातकफापहम् ॥ Su. Su. 46/219

पिष्ट्वाऽथवा सुशीतेन शालितण्डुलवारिणा ॥

तालस्य तरुणं मूलं त्रपुसस्य रसं तथा ।

श्वेतं कर्कटकं चैव प्रातस्तु पयसा पिबेत् ॥ Su. Chi. Mutraghata

58/42

त्रपुसं कण्टकिफलं सुधावासः सुशीतलम् ।

त्रपुसं लघु नीलञ्च नवं तृक्कलमदाहजित् ।

स्वादु पितापहं शीतं रक्तपित्तहरं परम् ॥

तत्पक्वमम्लमुष्णं स्यात्पित्तलं कफवातनुत् ।

तद्वीजं मूत्रलं शीतं रूक्षं पितास्रकृच्छ्रजित् ॥ भावप्रकाश आम्रादिफलवर्ग

त्रपुसं कटुकं तिक्तं विपाण्डुर्हस्तिपर्णिनी ।

दीर्घपर्णी मूत्रफला लता कर्कटिकाऽपि च ॥

त्रपुसं छर्दिहत्प्रोक्तं मूत्रबस्तिविशोधनम् ॥ धन्वन्तरिनिघण्टु -

गुडूच्यादिवर्ग

त्रपुसं च सुधावासो मूत्रलं कर्कटं तथा ।

अपरं कटुकं तिक्तं विपाण्डुर्हस्तिपर्णिनी ॥

दीपनीया मूत्रफला पाण्डुपुत्रा सुखप्रिया ।

सनीलं त्रपुसं बालं पित्तनुदतिमूत्रलम् ॥

तिक्तं स्वादु हिमं रूक्षं मूत्रकृच्छ्रास्रपित्तजित् ।

तत् पाण्डु कफकृज्जीर्णमम्लं वातकफापहम् ॥

गुरुग्रगन्धि त्रपुसं न वर्षासु हितं भवेत् ।

तदल्पदोषं भवति हेमन्ते त्रपुसं नवम् ॥ कैयदेवनिघण्टु - ओषधिवर्ग

त्रपुसी पीतपुष्पी कण्टालुस्त्रपुसकर्कटी ।

बहुफला कोशफला सा तुन्दिलफला मुनिः ॥

स्यात्त्रपुसीफलं रुच्यं मधुरं शिशिरं गुरु ।

भ्रमपित्तविदाहार्तिवान्तिहृद्बहुमूत्रदम् ॥ राजनिघण्टु - मूलकादिवर्ग

trapusairvārukaṃ svādu guru viṣṭambhi śītaḥ ॥

mukhapriyaṃ ca rūkṣaṃ ca mūtralaṃ trapusaṃ tvati| Charaka  
Sutrasthana 27/110

bālaṃ sanīlaṃ trapusaṃ teṣāṃ pittaharaṃ smṛtaṃ |  
tatpāṇḍu kaphakṛjīrṇamamlaṃ vātakaphāpaham || Su. Su.  
46/219

piṣṭvā'thavā suśītena śālitaṇḍulavāriṇā ||  
tālasya taruṇaṃ mūlaṃ trapusasya rasaṃ tathā |  
śvetaṃ karkaṭakaṃ caiva prātastu payasā pibet || Su. Chi.  
Mutraghata 58/42

trapusaṃ kaṇṭakiphalaṃ sudhāvāsaḥ suśītaṃ |  
trapusaṃ laghu nīlañca navam trṭklamadāhajit |  
svādu pittāpaham śītaṃ raktapittaharaṃ param ||  
tatpakvamamlamuṣṇaṃ syātpittalaṃ kaphavātanut |  
tadbījaṃ mūtralaṃ śītaṃ rūkṣaṃ pittāsrakṛcchrajit ||  
bhāvaprakāśa āmrādiphalaṃ  
trapusaṃ kaṭukaṃ tiktaṃ vipāṇḍurhastiparṇinī |  
dīrghaparṇī mūtraphalā latā karkaṭikā'pi ca ||  
trapusaṃ chardihṛtproktaṃ mūtrabastiviśodhanam ||  
dhanvantarinighaṇṭu - guḍūcyādivarga

trapusaṃ ca sudhāvāso mūtralaṃ karkaṭaṃ tathā |  
aparaṃ kaṭukaṃ tiktaṃ vipāṇḍurhastiparṇinī ||  
dīpanīyā mūtraphalā pāṇḍuputrā sukhapriyā |  
sanīlaṃ trapusaṃ bālaṃ pittanudatimūtralaṃ ||  
tiktaṃ svādu himaṃ rūkṣaṃ mūtrakṛcchāsrapittajit |

tat pāṇḍu kaphakrjīrṇamamlaṃ vātakaphāpaham ||  
gurugragandhi trapusaṃ na varṣāsu hitaṃ bhavet |  
tadalpadoṣaṃ bhavati hemante traṣusaṃ navam ||  
kaiyadevanighaṇṭu - oṣadhivarga  
trapusī pītapuṣpī kaṇṭhālustrapusakarkaṭī |  
bahuphalā kośaphalā sā tundilaphalā muniḥ ||  
syātrapusīphalaṃ rucyaṃ madhuraṃ śísīraṃ guru |  
bhramapittavidāhārtivāntihṛdbahumūtradam || rājanighaṇṭu -  
mūlakādivarga

### **Cucumber benefits as per Ayurveda:**

Vishtambhi - May cause constipation

Sheetala - coolant

Mutrala - diuretic

Basti shodhana - cleanses urinary bladder

It is not ideal to consume cucumber in rainy season.

It is ideal to consume cucumber grown in early winter period.

### **Bala, Neela Trapusa, blue variety - tender, unripe cucumber -**

Pittahara - useful in Pitta imbalance disorders such as gastritis,  
burning sensation, etc.

Laghu - light to digest

### **Indicated in -**

Trushna - excessive thirst



Klama - fatigue

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Chardi - Vomiting

Bhrama - Delusion, Dizziness

### **Trapusha beeja - seeds of cucumber -**

Mutrala - diuretic, improves urine flow

### **Indicated in**

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Mutrakrichra - Dysuria, urinary retention

### **Pandu - Pale, ripe cucumber -**

Kaphakrut - increases Kapha Dosha

Jeerna Trapusha - dried out cucumber - Vata Kaphahara

Pittala - Increases Pitta Dosha

### **External application -**

Soothes, moisturizes skin and relieves burning sensation of skin and eyes. It decreases inflammation, irritation. Hence used in sunburn.

### **Ayurvedic medicines with Cucumber (Trapush) as ingredient:**

**Sukhaprasava ghritha:** It is an ayurvedic medicated ghee given

during 7<sup>th</sup> and 8<sup>th</sup> month of pregnancy for easy delivery.

**Ashmarihara kashaya:** It is an ayurvedic decoction given to treat urinary calculi.

**Dadhika ghrita:** It is an ayurvedic medicine in ghee form during oleation procedure to treat epilepsy, malabsorption syndrome, ascites, dysuria and gulma.

**Diurestone syrup:** It is a proprietary ayurvedic medicine in syrup form, given to treat urinary tract infection and renal calculi.

### **Research articles on Trapusha:**

**Anti - cancer activity:** The present study explains a very superior anticancer action against liver cancer. The compound isolated from ethyl acetate fraction of Cucumis sativus flowers was tested for its anti - cancer activity against liver cancer HePG2 cell line by MTT assay. The CTC50 value of sample was 103.7µg/ml against liver cancer HePG2 cell lines. Significant results were observed thereby proving the use of this plant in the traditional system of medicine.

**Anti - diarrheal activity:** The methanolic extract (ME) of the plant was studied for its anti - diarrheal properties in experimental diarrhea, induced by castor oil and gastrointestinal transit test in mice, at the oral doses of 250 and 500 mg/kg body weight. In anti - diarrheal study, ME showed significant ( $P < 0.001$ ) dose - dependent inhibitory

activity against castor oil induced diarrhea. A significant reduction ( $P < 0.001$ ) in the gastrointestinal motility in charcoal meal test in mice was also observed, suggesting the extract might exert its anti - diarrheal activity by anti - secretory mechanism.

**Laxative action of cucumber:** The study was aimed to assess the possible laxative effect of aqueous fruit pulp extract of *Cucumis sativus* in Wistar albino rats. The laxative activity was determined based on the weight of the faeces matter. Acute toxicity study revealed that the extract did not show any toxicity upto 4000mg/kg so 250mg/kg and 500 mg/kg, 1000mg/kg dose was selected for pharmacological evaluation. The aqueous fruit pulp extract of *Cucumis sativus* administered orally at three different doses produced significant laxative activity and reduced loperamide induced constipation in dose dependent manner.



### **Cucumber side effects:**

It is best to avoid this during cold, cough, as it is a natural coolant and could worsen the symptoms.

It is best to avoid in patients with frequent urination.

It is safe to use during pregnancy, lactation period and in children.

### **Classical categorization:**

Sushruta Samhita - Madhura Varga (Reference: Su. Sutrasthana 42/11)

Vagbhata - Madanadi gana

Bhavaprakasha - Amradi phala varga

Dhanvantari Nighantu - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Moolakadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Cucurbitales

Family: Cucurbitaceae

Genus: Cucumis

Species: Cucumis sativus

## **22. Bottle Gourd Uses, Home Remedies, Side Effects, Research**

Bottle gourd or calabash is a climber which is described in ayurveda for the treatment of jaundice, diabetes, localized swelling and skin diseases. It is also used to induce purgation and emesis (Panchakarma treatment). It is known by the terms Lauki, Louki in Hindi.

Latin name - *Lagenaria siceraria* Standl.

Family - Cucurbitaceae

*Lagenaria leucantha* (equated with sweet bottle guard) and *Lagenaria vulgaris* are the previously used Latin names for the herb katutumbi.

### **Names in different languages:**

Hindi name - Titalouki, Kadavi louki, Lauki

English name - Bottle gourd, Long melon, Calabash, white - flowered gourd, Bitter calabash gourd

Bengali Name - Titlaou, Ladu

Gujarati Name - Kadavi tumbadi, Dudhi, Tumada

Kannada Name - Sorekai, Sorekayi

Telugu name - Sorekaya, Sorakkaya

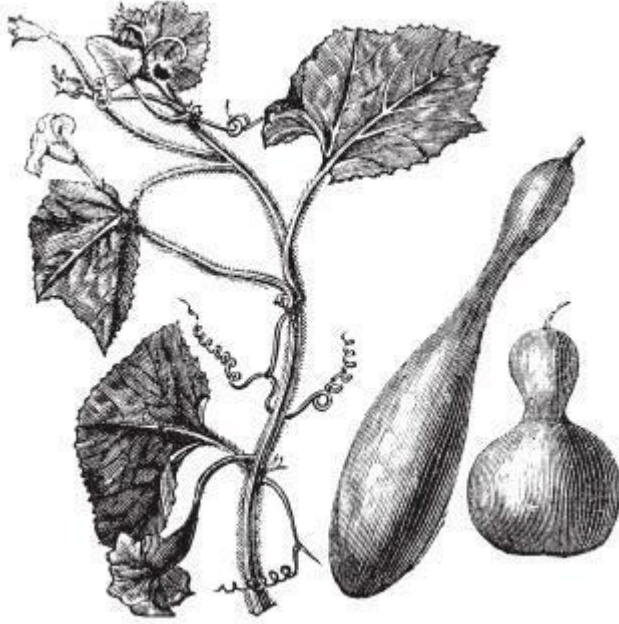
Manipuri name - Khongdrum

Marathi name - Dudhi

Tamil name - Surakkai

Malayalam name - Pechura

Urdu name - Lauki



### **Synonyms of Louki in Sanskrit:**

Pinda phala - Fruit is spherical in shape

Tikta beeja, Tiktalabu - The fruit is bitter in taste

Mahaphala - Fruit grows to a big size

Ikshvaku, Tumbi, Lamba, Katutumbi, Rajaputri, Tumbika,

Katutumbi is more popularly known as Ikshvaku in Ayurvedic pharmacopoeia. It is a climber which is abundantly found all over India in temperate climate. The fruit is bitter in taste and used for medicinal purpose. Another variety of this plant, in which the fruit is little sweet, is cultivated for its vegetable use. It is popularly known as 'Louki' in Hindi language and used for many culinary purposes.



**Lauki, calabash medicinal properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light), Ruksha (Dry)

Veerya (Potency) - Sheeta (Cold)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Karma (Action) - Balances Vata and Pitta

Vamaka (Induces emesis), Ahrdya (Not good for the heart muscles), Vishagna (reduces poisonous effect)

**Part used** - Root, Leaf, Fruit

**Dosage** - Fresh juice 10 - 20 ml.



### **Lagenaria siceraria chemical constituents:**

The bitter fruit of bottle guard contains 0.013% of cucurbitacin B and aglycones. The fruit juice contains beta - glycosidase. The leaves and root of the plant contains cucurbitacin B. The seed contains avenasterol and codisterol. Palmitic acid, Stearic acid, Iinobic & obic acids are found in seed oil.

### **Uses of katutumbi:**

- Nasal drops are indicated of katutumbi leaves to treat jaundice and sinusitis.
- The fresh juice of Lagenaria siceraria is used for mouth wash and gargling to treat dental caries.



- The medicated oil prepared from the leaves and root of katutumbi plant is used for external application to treat skin diseases, localized swelling and wounds.
- The fruit, leaves and root of Lagenaria siceraria is used to induce emesis and purgation as part of panchakarma procedures in Ayurveda.
- The paste of the leaves of the plant is applied over the affected area due to insect bites along with pain and itching sensation.
- The decoction of the leaves and fruit is given 20 - 25 ml in divided dose to treat infections and skin diseases due to blood impurity.
- The decoction of the fruit and leaves in a dose of 15 - 20 ml is given in empty stomach to treat intestinal worms.
- The sweet variety of the fruit is used as vegetable in different culinary.

तुम्बी लम्बा पिण्डफला राजन्या प्रवरापरा ।

कटुतुम्बी तिक्तबीजा तिक्तालाबुर्महाफला ॥

राजपुत्री पिण्डफला दुग्धिनीका च दुग्धिका ।

तुम्बी तिक्ता कटुः पाके वामनी वातपित्तजित् ॥

अहद्या शीतला कासश्वासज्वरविषापहा ।

अलाबुपत्रं मधुरं पित्तघ्नं मूत्रशोधनम् ॥ कैयदेवनिघण्टु - ओषधिवर्ग

इक्ष्वाकुः कटुतुम्बी स्यात्सा तुम्बी च महाफला ।

कटुतुम्बी हिमा हृद्या पित्तकासविषापहा ।

तिक्ता कटुर्विपाके च वातपित्तज्वरान्तकृत् ॥ भावप्रकाश शाकवर्ग

कटुतुम्बी कटुस्तिका वातकृच्छवासकासजित् ।

कासघ्नी शोधनी शोफव्रणशूलविषापहा ॥ धन्वन्तरिनिघण्टु -

गुडूच्यादिवर्ग

कटुतुम्बी कटुफला तुम्बिनी कटुतुम्बिनी ।

बृहत्फला राजपुत्री तिक्तबीजा च तुम्बिका ॥

कटुतुम्बी कटुस्तीक्ष्णा वान्तिकृच्छवासवातजित् ।

कासघ्नी शोधनी शोफ - व्रणशूलविषापहा ॥ राजनिघण्टु -

गुडूच्यादिवर्ग

tumbī lambā piṇḍaphalā rājanyā pravarāparā |

kaṭutumbī tiktabījā tiktālāburmahāphalā ||

rājaputrī piṇḍaphalā dugdhinīkā ca dugdhikā |

tumbī tiktā kaṭuḥ pāke vāmanī vātapittajit ||

ahṛdyā śītalā kāsaśvāsajvaraviṣāpahā |

alābupatram madhuram pittaghnam mūtraśodhanam ||

kaiyadevanighaṇṭu - oṣadhivarga

ikṣvākuḥ kaṭutumbī syātsā tumbī ca mahāphalā |  
kaṭutumbī himā hr̥dyā pittakāsaviṣāpahā |  
tikṭā kaṭurvipāke ca vātapittajvarāntakṛt || bhāvaprakāśa  
śākavarga

kaṭutumbī kaṭustikṭā vātakṛcchvāsakāsajit |  
kāsaghñī śodhanī śophavraṇaśūlaviṣāpahā ||  
dhanvantarinighaṇṭu - guḍūcyādivarga

kaṭutumbī kaṭuphalā tumbinī kaṭutumbinī |  
br̥hatphalā rājaputrī tikṭabījā ca tumbikā ||  
kaṭutumbī kaṭustīkṣṇā vāntikṛcchvāsavātajit |  
kāsaghñī śodhanī śopha - vraṇaśūlaviṣāpahā || rājanighaṇṭu -  
guḍūcyādivarga

### **Ayurvedic uses of Lauki - Bottlegourd**

Vamani - induces vomiting

Vatapittajit - Balances Vata and Pitta

Ahrudya - not good for heart

Sheetala - coolant

Indicated in -

Kasa - cough, cold

Shwasa - asthma and chronic respiratory disorders

Jvara - fever

Visha - Toxic conditions, poisoning, insect bite etc.

Shopha - inflammation

Vrana - Ulcers, wounds

Shoola - abdominal colic pain

### **Leaves of bottlegourd -**

Madhura - sweet

Pittaghna - Pittahara - useful in Pitta imbalance disorders such as gastritis, burning sensation, etc.

Mutrashodhana - cleanses urinary bladder

### **Side effects of Iksvaku:**

#### **Contraindicated persons to consume katutumbi (Bitter**

**variety):** People suffering from cardiac diseases should avoid taking katutumbi or its formulations as katutumbi cause emesis and purgation, during which it can exert more pressure on the cardiac muscles. Children, old age people and pregnant women also should avoid consuming kautumbi.

**Read related: [6 Bottle Gourd Remedies For Gall](#)**

**[Bladder, Conjunctivitis, Fatigue](#)**

#### **Ayurvedic medicines containing Lauki as ingredient:**

**Maha vishagarbha Taila:** It is a medicated ayurvedic oil used for external application in the treatment of sciatica, pain in major joints of the body, vata dosha related stiffness and pain in the body.

In Charaka Samhita Kalpasthana, Acharya Charaka has

mentioned about some of the formulations, which can be prepared to induce emesis and purgation.

### **Research articles on katutumbi (Bottle gourd)**

**Multiple health benefits:** The plant is used as a medicine as cardio - tonic, diuretic activity. Further it is used to treat pain, ulcer, fever, and respiratory disorders. In some countries it is traditionally used to treat diabetes.

**Natural guard against diseases:** The fruit of the plant helps in treating constipation, premature graying of hair, insomnia, increased blood pressure. It also helps in improving the memory, reducing weight and treating ulcers.

The effect of the petroleum ether extract of seeds of *Lagenaria siceraria* was evaluated in experimental models of pain and inflammation. The seed extract at 200 & 400 mg/ml showed significant decrease in acetic acid writhing in mice with a maximum of 32 % at 200 mg/ml & 58 % at 400 mg/ml. The anti - inflammatory effects observed with the extract were comparable to that of standard. There was significant anti - ulcerogenic property.

**Anti - depressant activity:** LS fruit slices were dried and extracted with methanol in Soxhlet apparatus for 5 - 6 h. Adult Wistar albino rats were subjected to behavior despair test. Imipramine was used as reference standard drug.

The MLSF (50, 100, and 200 mg/kg, p.o.) showed dose -

dependent significant reduction in duration of immobility ( $P < 0.01$ ) in behavior despair test.

**Anti - diabetic activity:** *Lagenaria siceraria* induced significant reduction in blood glucose and increasing of serum insulin, our data indicate that the level of glucose in the animals that were subjected with alloxan was 210 mg/dl comparing with normal 70 mg/dl, the level of blood glucose in diabetic group when subjected with *Lagenaria siceraria* extract decreased to 89 - 106.5 mg/dl. These findings suggest that *LSPE* and *LSSE* treatment exerts therapeutic protective effect in diabetes by preserving pancreatic cell integrity and significant activity extract, which supports traditional usage of the plant to prevent diabetic complications.

### **Classical categorization of Ikshvaku / Katutumbi:**

Charaka samhita - Vamana and Phalini

Sushruta samhita - Urdhwabaga hara

Bhavaprakasha - Shaka varga

Dhanvantari Nighantu - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Guduchyadi varga

### **Scientific classification of Bottle gourd**

Kingdom: Plantae

Order: Cucurbitales

Family: Cucurbitaceae

Genus: Lagenaria

Species: L. siceraria

### **23. 10 Amazing Uses Of Lavender Oil**

Lavender oil is among the most highly favored herbal remedies in the industry of human beauty. Its calming fragrant could be found in many types of candles, hair products, and creams.

Lavender essential oil contains both psychological as well as physiological properties.

It has more than 150 active constituents and has powerful antidepressant, calmative, analgesic, antibacterial, antiseptic, sedative, antispasmodic, antimicrobial, antifungal, and anti-inflammatory properties. All these wonderful effects can surely justify its uses in the current health industry.



### **Uses Of Lavender Oil - The Best Advantages Of Lavender Essential Oil**

Lavender is the most versatile herbal, with the essential oil extracted from it used for several therapeutic and cosmetic purposes. This essential oil provides a floral - herbaceous fragrance that is refreshing and relaxing to our body and mind. In the article today, people will have a chance to discover some of the most common and great uses of lavender oil in life. Keep your head in the words below and try making uses of the tips and tricks that this list provides right from today for good!

### **1. Promote Hair Regrowth (Alopecia Areata)**

Alopecia areata, an auto - immune condition that leads the hair to fall in patches off people's head, could be cured with the use of this amazing essential oil.

A research published in the Archives of Dermatological Research in 1998 suggested that the use of lavender oil along with any other essential oil like cedar wood, rosemary, and thyme is a useful cure for alopecia areata. There are two simple methods everyone can make use at home to promote hair growth with the help of lavender essential oil:

- First, you simply need to use lavender essential oil to massage your scalp every day for several months to promote fast hair growth and recovery.



- Alternatively, try mixing 2 tbsps. of jojoba oil or any other type of carrier oils with 3 - 5 drops of lavender essential oil.

**Caution:**

Although lavender oil is considered safe to apply onto our skin, never forget to make a small patch test to rule out the risk of an allergic reaction. Moreover, consult an expert before making use of this essential oil if you are pregnant.



**2. Work As Natural Bug Repellent**

Lavender essential oil can work effectively like a natural insect repellent to help in keeping insects, such as flies, moths, black beetles, mosquitoes, and fleas away from you.

- First, you just need to add 3 - 5 drops of this essential oil on a cotton ball and put the ball in your

linen drawers and closets to keep moths and insects away. In addition, you can try adding lavender and any other essential oil you like in a homemade bug repellent.

- Alternatively, try applying 3 - 5 drops of lavender oil to your certain points before you go out to deter insects. Remember to do a patch test to check if the oil suits your skin before you apply it directly onto your skin. Not similar to any other essential oil, lavender oil is gentle and can be usefully used directly onto skin. Nevertheless, if it leads to any skin irritation, then try mixing 3 - 5 drops of lavender oil in one type of carrier oils, such as sunflower oil and use it to rub gently onto your skin.

### 3. Masks Unpleasant Odors

The sweet fragrant of lavender essential oil can aid in masking unpleasant odors in your living room, bedrooms, bathrooms, and kitchen, as well as body odor.

In addition, when being used as a **natural freshener for air**, it will not lead to respiratory issues or headaches that some types of chemical - based air freshener could cause.

- Add 3 - 5 drops of lavender essential oil into a mason jar filled with half a cup of baking soda. Use

paper to cover the jar's mouth and use a fork to poke holes in it. Keep that jar in your kitchen or bedroom.

- For keeping your home always smell fresh, add several drops of lavender essential oil to your humidifier.
- You can also try adding drops of lavender essential oil to a spray bottle filled with fresh water. Spray the water and the aroma as needed in the regions of your body that perspire easily.
- For fighting against body odor, try adding 3 - 5 drops of lavender oil to your shower gel or bathwater.

#### 4. Cure Staph Infection

Staph infection due to staphylococcus bacteria could be cured with lavender oil thanks to the powerful anti - inflammatory and antimicrobial properties it has. Staphylococcus bacteria could lead to several **skin issues**, such as cellulitis, impetigo, and boils.

A research published in the Alternative and Complementary Medicine journal in 2009 exposed the antimicrobial activities of this essential oil on methicillin - resistant and - sensitive Staphylococcus aureus (MRSA and MSSA). Here are two ways

you can try at home with lavender essential oil to cure staph infection if needed:

- The first choice is to mix 1 tsp. of aloe vera gel with 3 - 5 drops of lavender oil and use it to apply directly onto your infected skin region. Let it stay within 60 minutes before using lukewarm water to wash it off. Apply this method 2 times per day for several days.
- Another option is to try putting two or three drops of this essential oil on a cotton swab and use it to dab directly onto your infected skin area. Allow it to stay within about half an hour before rinsing it off. Repeat 2 times per day for several days.

## 5. Relieve Pain

Lavender oil contains powerful anti - inflammatory and pain - relieving properties that can help a lot in reducing inflammation, swelling, and pain. You can use lavender essential oil to cure leg pain, sore muscles, a backache, or even arthritis pain.



In a research conducted in 2006 published in the journal of Pain Practice, patients who took oxygen from the lavender aromatherapy after experiencing a breast biopsy surgery saw a great pain relief. You can try these two easy methods with lavender essential to reduce your pain at home without facing any difficulty. ([Source](#))

- Add to warm bathwater with several drops of lavender oil and soak in it for about ten to fifteen minutes to [keep pain and aches away](#).
- A frequent massage using 3 - 5 drops of lavender oil mixed with olive oil can offer relief from muscle and joint pain.

## 6. Treat Respiratory Problems

Lavender oil can be used to relieve respiratory problems and relax breathing passages as well. The powerful anti-inflammatory properties of this oil can also aid in strengthening the ability to inhibit asthma attacks of your own body.

A research published in the journal of Life Sciences in 2014 also discovered that inhaling lavender essential oil can aid in treating bronchial asthma and suppressing allergic airway inflammation.

In addition, lavender oil could provide a great support in curing respiratory issues like flu and cold, throat infections and bronchitis. There are 3 simple ways you can try at home with the help of lavender essential oil:

- First, you just need to add 3 - 5 drops of lavender essential oil to a humidifier or diffuser.
- Another choice is that you can try steaming with the inhalation therapy with this essential oil.
- Mix two tablespoons of carrier oil like olive oil or jojoba oil with five or six drops of lavender oil and use the mixture to gently rub onto your chest 2 times per day for 2 - 3 days.

## 7. Fight Anxiety And Related Issues

Lavender essential oil can work effectively as a sedative and can help in reducing panic attacks as well as anxiety. Lavender aromatherapy can unwind the nervous system and induce relaxation, helping to reduce signs and symptoms of anxiety. It can also distract your mind from situations that can trigger an anxiety attack. In addition, it can help in lowering high blood pressure and suppressing heart stimulation. There are some simple ways people can try at home with the support of lavender oil to combat anxiety and some other mental health issues:

- Add 3 - 5 drops of lavender essential oil to your favorite massage oil and massage the oil mixture into your shoulders, back, and neck.
- To relax, try rubbing about 3 - 4 drops of lavender oil onto your temples.
- To ease anxiety, put 3 - 5 drops of this essential oil into a hot water bowl and inhale the steam.

## 8. Treat Fungal Infections

Lavender oil is also a useful natural treatment for combating antifungal - resistant infections. A research published in the Medical Microbiology Journal in 2011 exposed that lavender oil

has potent antifungal properties against the fungi strains that can lead to common nail and skin infections.

It can also aid a lot in soothing burns, bruises, cuts, minor wounds, or itchy skin, as well as reducing the risks of scarring.

There are some simple steps you should follow at home to make use of lavender oil to get rid of fungal infections without having to make use of any medication:

- Try mixing one tsp. of olive oil with 3 - 5 drops of lavender essential oil.
- Apply the solution with a cotton ball directly onto your infected skin area.
- Allow it to stay within about half an hour at least, and then use lukewarm water to rinse it off and pat it dry thoroughly.
- Repeat 2 times per day until you can completely stop the infection.

## 9. Relieve Headaches

If you have to struggle with migraines or tension headaches frequently, then maybe lavender oil can act as a natural alternative for you to replace pain - reducing medications.

It contains powerful anti - inflammatory and pain - relieving properties that can help to relieve pain effectively. Moreover,



lavender oil can relax tense muscles that usually contribute to headaches.

A research published in European Neurology in 2012 suggested that inhaling lavender essential oil is a safe and useful therapy for reducing a migraine headache. Here are 2 simple methods you can try at the comfort of your own home with the help of this natural ingredient to reduce headaches:

- First, you just need to mix 1 tbsp. of olive oil with two drops of lavender essential oil and use it to massage your forehead.
- Add about 3 - 5 drops of lavender oil on a handkerchief and try inhaling the aroma for fast headaches relief.

#### 10. Promote Goodnight's Sleep

Over decades, people used lavender flowers to fill their pillows to help increase their sleep quality. In nowadays, it is proven by science that the lavender aromatherapy can aid a lot in relaxing and sleeping better.

A research published in the American Journal of Critical Care in 2014 exposed that the aromatherapy using lavender could be a useful method people should try to improve their sleep quality. In addition, lavender oil can help in balancing strong emotions and stabilizing your moods. There are 2 ways people can try at

home with the help of lavender oil to promote goodnight's sleep:

- First, you just need to add ten to twelve drops of lavender essential oil to a bedroom aromatherapy diffuser.
- Alternatively, try adding on a tissue with three or four drops of lavender essential oil and put it under the pillow to induce goodnight sleep.

The article today is an entire combination of the best uses of lavender oil that people should not skip. If you are among people who love this natural ingredient, then read this article carefully and make use of the tips and tricks it introduces. If you have any question about the content of this writing, feel free to leave your comments and feedbacks on the section below!

Author: Huyen My

## **24. Luffa echinata: Uses, Dose, Research, Side Effects**

Devadali - Luffa echinata is an ayurvedic herb used in the treatment of jaundice, rhinitis, skin diseases, cough, for inducing purgation, diseases of the liver and during difficulty in labor to dilate the uterus.

Botanical Name - Luffa echinata Roxb.

Family - Cucurbitaceae

### **Names in different languages:**

Hindi Name - Bindal, Ghagharbel, Kakoda

English Name - Bristly Luffa, Bitter luffa, Rag gourd

Bengali Name - Deyatada

Gujarati Name - Kukurvel

Kannada Name - Daivadali

Marathi Name - Devadangari

Tamil Name - Peypirkku

Telugu Name - Panibira

### **Synonyms -**

Jeemoot, Gargari, Devatadak,

Vrittakosha - Fruit is of round shape

Veni, Jalini - The fruit is having soft needle like covering

Devadali is a climber having hairy soft stem found in the Northern states of India. The fruits are oval to round shape having soft, hairy covering.

Jeemutaka, Devatada,

AkhuVishaha - useful in treating rat bite, rodent poisoning

**Luffa echinata - medicinal Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Cause dryness)

Veerya (Properties) - Ushna (Hot in potency)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Karma (Action) - Tridosahara (Pacifies all the dosha), Vamaka (Induces Emesis), Vishagna (Controls the poisonous effect)

**Part used** - Fruit, Flowers

**Dosage** - Powder 1 - 3 g

Juice 10 - 15 ml

**Chemical constituents:**

The fruit of Luffa echinata contains chrysoeriol and its glycosides as principal flavonoids. The seeds contain cucurbitacin B, triterpene alcohols and sapogenin.

जीमूतकं त्रिदोषघ्नं यथास्वौषधकल्पितम्।

प्रयोक्तव्यं ज्वरश्वासहिक्काह्योष्वामयेषुच॥ (च. क २/४)

जीमूतककुसुमचूर्णं पूर्ववदेव क्षीरेण, निर्वृतेषु क्षीरयवागूं,

रोमशेषु सन्तानिकां, अरोमशेषु दध्युत्तरं, हरितपाण्डुषु

दधि, तत्कषायसंसृष्टं वा सुरां कफारोचककासश्वासपाण्डु

रोगयक्ष्मसु; पर्यागतेषु मदनफलमज्जवदुपयोगः ॥४॥

Su. सूत्रस्थानम् - ४३/४ वमनद्रव्यविकल्पविज्ञानीयाध्यायः

देवदाली रसे तित्ता कफार्शःशोफपाण्डुताः ।

नाशयेद्वामनी तित्ता क्षयहिक्काकृमिज्वरान् ॥

देवदालीफलं तित्तं कृमिक्षेष्मविनाशनम् ।

संसनं गुल्मशूलघ्नमर्शोघ्नं वातजित्परम् ॥भा.प्र.

जीमूतको ज्वरश्वासकासहिध्मारुचिक्षये ।

शोफपाण्डुविषध्वंसी गरेषु वमने हितः ॥ ध.नि.

देवदालीत्रयं श्वासज्वरकासकफापहम् ।

आखोर्विषं निहन्त्याशु वामनं योनिरेचनम् ॥

श्वेता रक्ता च पीता च देवदाल्यो गुणैः समाः । सो.नि.

देवदाली रसे पाके तित्ता तीक्ष्णा विषापहा ॥

वामनी हन्ति गुदजकफशोफामकामलाः ।

ज्वरकासारुचिश्वासहिध्मापाण्डुक्षयकृमीन् ॥

देवदालीफलं तित्तं कृमिक्षेष्मविनाशनम् ।

संसनं गुल्मशूलघ्नमर्शोघ्नं वातजित् परम् ॥कै.नि.

देवदाली तु तिक्तोष्णा कटुः पाण्डुकफापहा ।

दुर्नामश्वासकासघ्नी कामलाभूतनाशिनी ॥रा.नि.

jīmūtakaṃ tridoṣaghnaṃ yathāsvauśadhakalpitaṃ |  
prayoktavyaṃ jvaraśvāsaḥhikkāhyoṣvāmayeṣuca || (ca. ka 2/4)  
jīmūtakakusumacūrṇaṃ pūrvavadeva kṣīreṇa, nirvṛtteṣu  
kṣīrayavāgūṃ,  
romaśeṣu santānikāṃ, aromaśeṣu dadhyuttaraṃ,  
haritapāṇḍuṣu  
dadhi, tatkaśāyasaṃsrṣṭāṃ vā surāṃ  
kaphārocakakāsaśvāsapāṇḍu  
rogayakṣmasu; paryāgateṣu madanaphalamajjavadupayogaḥ  
||4||

Su. sūtrasthānam - 43/4 vamanadravyavikalpavijñānīyādhyāyaḥ  
devadālī rase tiktā kaphārśaḥśophapāṇḍutāḥ |  
nāśayedvāmanī tiktā kṣayahikkākṛmijvarān ||  
devadālīphalaṃ tiktaṃ kṛmiśleṣmavināśanam |  
sraṃsanaṃ gulmaśūlaghnamarśoghnaṃ vātajitparam  
||Bhavaprakasha.

jīmūtako jvaraśvāsakāśahidhmārucikṣaye |  
śophapāṇḍuviśadhvaṃsī gareṣu vamaṇe hitaḥ || dha.ni.  
devadālītrayaṃ śvāsajvarakāśakaphāpahaṃ |  
ākhorviṣaṃ nihantyāśu vāmanaṃ yonirecanaṃ ||

śvetā raktā ca pītā ca devadālyo guṇaiḥ samāḥ | so.ni.  
devadālī rase pāke tiktā tīkṣṇā viṣāpahā ||  
vāmanī hanti gudajakaphaśophāmākāmalāḥ |  
jvarakāsāruciśvāsahidhmāpāṇḍukṣayakṛmīn ||  
devadālīphalaṃ tiktaṃ kṛmiśleṣmavināśanam |  
sraṃsanaṃ gulmaśūlaghnamarśoghnaṃ vātajit param ||kai.ni.  
devadālī tu tiktoṣṇā kaṭuḥ pāṇḍukaphāpahā |  
durnāmaśvāsakāsaghnī kāmālābhūtanāśinī ||rā.ni.

### **Uses of Luffa echinata (Bristly Luffa):**

- The paste of the fruits is applied over the pile mass to reduce the size of the external piles and dry it.
- The drops of the flowers and fruit is applied through nostril as 'nasya' to treat jaundice, rhinitis, sinusitis and headache.
- The decoction of the fruit is given in a dose of 15 - 20 ml to treat dyspnea, cough and respiratory diseases.
- The decoction of the fruit is given in a dose of 20 - 25 ml to treat urinary tract infections and difficulty in micturition.
- The decoction of the fruit and whole plant is given to treat dysmenorrhea and difficulty during the last stages of labor.

- The cold infusion of the plant is given in a dose of 30 - 40 ml to treat fever.
- The fresh juice of the fruit and whole plant is given to induce emesis and purgation in cases of ingested poison.
- The powder of the plant is given in dose of 3 - 5 g to treat diseases of the liver and spleen.
- The decoction of the plant is given in a dose of 50 - 60 ml to treat ascites, intestinal worms and ingested poison.
- The decoction of the fruit is given in a dose of 25 - 30 ml to treat skin diseases like eczema, ringworm.
- The plant is a blood purifier and hence its decoction is given to purify the blood.

- **Ayurvedic uses of Luffa echinata:**

Sramsana - mild laxative

**Indications:**

Jwara - fever

Shwasa - asthma and chronic respiratory disorders

Hikka - hiccups

Arochaka - anorexia

Pandu - anemia

Rajayakshma - Chronic Respiratory disorder

Arsha - haemorrhoids - due to Kapha aggravation



Shopha - inflammation

Kshaya - depletion of body tissues, weight loss,  
tuberculosis

Krumi - worm infestation

Gulma - Tumors of the abdomen

Shoola - abdominal colic pain

Akhuvisha - rat bite, rodent bite,

Visha - Toxic conditions, poisoning

Kamala - Jaundice, Liver diseases

Bhuta - psychiatric disorders, anti microbial

### **Luffa echinata fruit is**

Tikta - bitter

Useful in

Krumi - worm infestation

Shleshma - Kapha disorders

### **Side effects and Contraindicated persons to consume**

#### **Luffa echinata (Rag gourd):**

People suffering from cardiac diseases should avoid taking devadali or its formulations as it cause emesis and sometimes purgation, during which it can exert more pressure on the cardiac muscles. Children, old age people and pregnant women also should avoid consuming devadali.

#### **Formulations containing Devadali:**

**Abhaya lavana:** It is an ayurvedic medicine used in the

treatment of spleen and liver disorders. Care should be taken that patients should not take the preparation for long duration as it can cause decrease in sperm count.

**Brahmi Drakshadi Kashaya:** It is an ayurvedic medicine in decoction form given for the treatment of fever, burning sensation of the body and vata disorders like paralysis, neuralgia.

- Formulations prepared from Devadali, needed for inducing emesis as part of poorvakarma for panchakarma therapy, is described in Kalpasthana of Charaka Samhita.

### **Research articles on Devadali:**

**Hepato - protective action:** The different extracts of the fruits of *Luffa echinata* Roxb. (Cucurbitaceae) were tested for their hepatoprotective activity against CCl<sub>4</sub> induced hepatotoxicity in albino rats. The degree of protection was measured by using biochemical parameters like serum glutamic oxalacetic transaminase (SGOT), serum glutamic pyruvate transaminase (SGPT), alkaline phosphatase (ALKP), total protein (TP) and total albumin (TA). The petroleum ether, acetone and methanolic extracts showed a significant hepatoprotective activity comparable with those of Silymarin.

**Anti - arthritic action:** The present study states the effect of the aqueous extract (LEFAE) and the alcoholic extract (LEFEE) of *Luffa echinata* Roxb. fruits on the Freund's

complete adjuvant (FCA) induced arthritic rat paw edema, body weight changes and alterations in haematological and biochemical parameters in both developing and developed phases of arthritis. The results of the current investigation concluded, ethanol extract of *Luffa echinata* Roxb. Fruits, extract possess a significant anti - arthritic activity against adjuvant induced arthritis and justifying its therapeutic role in arthritic condition. The observed antiarthritic activity may be due to the presence of phytoconstituents such as irridiod glycosides, alkaloids, phenolic compounds and flavonoids.

#### Treatment for human colonal cancer:

These experiments suggest that LER has anticancer properties via inducing the apoptosis in colon cancer cells, which provided the impetus for further studies on the therapeutic potential of LER against human colon carcinoma.

#### **Classical categorization:**

Charaka Samhita -

Vamana - group of herbs that are used for inducing vomiting, in Vamana Panchakarma therapy

Phalini - fruit group of herbs

Sushruta Samhita -

Urdwabagahara - group of herbs that are used for inducing vomiting

Ubhayatobagahara - group of herbs that are useful both in Vamana and Virechana therapies.

Kaiyyadeva Nighantu - Oushadhi varga

Dhanvantari Nighantu - Guduchyadi varga

Bhavaprakasha - Shaka varga

Raja Nighantu - Moolakadi varga

Shodala Nighantu - Guduchyadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Cucurbitales

Family: Cucurbitaceae

Genus: Luffa

Species: Echinata

## **25. Black Cardamom: Uses, Dose, Side Effects, Research, Remedies**

Black cardamom is also known as greater cardamom and Brihad ela in Sanskrit. Botanically, Amomum subulatum is a herb mentioned in Ayurveda for the treatment of pain, to eradicate bad odor, increase the appetite, treat skin diseases, nausea.

Latin Name - Amomum subulatum Roxb.

Family - Zingiberaceae

### **Names in different languages:**

Hindi Name - Badi ilayachi

English Name - Black cardamom, Greater cardamom, Nepal cardamom

Bengali Name - Badh elach

Gujarati Name - Elcha

Kannada Name - Dodda elakki

Tamil Name - Peria elam

Telugu Name - Tengu elakulu



### **Sanskrit Synonyms of Brihat Ela:**

Brihad ela/ Sthula ela, Mahaila - The size of the pod is bigger than cardamom

Trividodhbuta, Triputa - The pod has 3 edges

Surabhi Twak, Tvak Sugandhika, Divyagandha - The seeds have a pleasant smell

Putra - due to pod shape

Badra ela, Bahula, Bhadraila, Patraila, Kanyaka, Pruthveeka, Chandrabala, Nishkuti,

Brihat ela is a short plant growing to a height of up to 1 - 1.5 meters in Bengal, Assam and Himalayan regions of Northeast India. The flowers are whitish, densely formed. The fruit pod is about 2 - 3 cm long with reddish brown color.



**Greater cardamom - Brihat Ela - medicinal Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha), Pitta vardaka (increase pitta dosha)

**Part used** - Fruit pod/ Seed

**Dosage** - Powder of seed 1 - 3 g



### **Chemical composition of Amomum subulatum:**

The seed of Amomum subulatum contains cardamomin, a flavonoid alpinetin, petu - nidin - 3,5 - diglucoside and leucocyanidin glucoside. The essential oil of the seed contains cineole.

### **Uses of Black cardamom - Brihadela:**

- The cold infusion of the seeds of Amomum subulatum is used for gargling to treat diseases of the oral cavity like dental caries, inflammation of the gums.
- The paste of the seeds of Brihat ela is applied over the area affected with skin diseases like eczema, ringworm.
- The paste of the seeds of Brihat ela is applied over forehead to treat headache.
- The powder of the seeds is chewed to reduce the foul breath.



- The seed of the powder of Amomum subulatum is consumed in a dose of 2 - 3 g to treat nausea, motion sickness.
- Cold infusion of Brihat ela is consumed in a dose of 10 - 15 ml to treat indigestion, anorexia and distention of the abdomen.
- The powder of the seed is given in a dose of 3 - 5 g with honey to treat cough.
- The oil prepared using seeds of Brihat ela is applied over the body parts having pain and swelling.
- The paste of the seeds of Amomum subulatum is applied over the external pile mass to reduce it.
- The aromatic oil prepared from the seeds is used as nasal drops to treat sinusitis.
- The paste of the seed is applied over the body or the cold infusion of the seed is given in a dose of 15 - 20 ml to treat kaphaja jwara (fever due to vitiated kapha dosha)
- The seed of Brihat ela is crushed and used as an aromatic agent during the preparation of various dishes.

भद्रैला बृहदेला स्यात् पत्रैला त्वक्सुगन्धिका ॥

त्रिपुटा त्रिदिवोद्भूता स्थूलैला कन्यका पुटा ।

भद्रैला कटुका पाके रसे पित्ताग्निकृल्लघुः ॥

रूक्षोष्णा रोचनी कासकफवातास्रधासहा ।

हन्ति हृल्लासतृट्कण्डूशिरोवस्त्यास्यरुग्वमीः ॥कैयदेवनिघण्टु -

ओषधिवर्ग

भद्रैला बृहदेला तु त्रिपुटा त्रिपुटोद्भवा ।

स्थूलैला त्वक्सुगन्धा च पृथ्वीका कन्यका पुटा ॥

एला तित्ता च लघ्वी स्यात्कफवातविषव्रणान् ।

बस्तिकण्ठरुजो हन्ति मुखमस्तकशोधिनी ॥धन्वन्तरिनिघण्टु -

शतपुष्पादिवर्ग

एला स्थूला च बहुला पृथ्वीका त्रिपुटापि च ।

भद्रैला बृहदेला च चन्द्रबाला च निष्कुटिः ॥

स्थूलैला कटुका पाके रसे चानलकृल्लघुः ।

रूक्षोष्णा क्षेष्मपित्तास्रकण्डूश्वासतृषापहा ।

हृल्लासविषबस्त्यास्यशिरोरुग्वमिकासनुत् ॥भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - कर्पूरादिवर्ग

स्थूलैला बृहदेला त्रिपुटा त्रिदिवोद्भवा च भद्रैला ।

सुरभित्वक् च महैला पृथ्वी कन्या कुमारिका चैन्द्री ॥

कायस्था गोपुटा कान्ता घृताची गर्भसम्भवा ।

इन्द्राणी दिव्यगन्धा च विज्ञेयाऽष्टादशाह्वया ॥

एलाद्वयं शीतलतिक्तमुक्तं सुगन्धि पित्तार्तिकफापहारि ।

करोति हृद्रोगमलार्तिबस्तिपुस्त्वघ्नमत्र स्थविरा गुणाढ्या ॥राजनिघण्टु

- पिप्पल्यादिवर्ग

bhadrailā bṛhadelā syāt patrailā tvaksugandhikā ॥

tripuṭā tridivodbhūtā sthūlailā kanyakā puṭā |

bhadrailā kaṭukā pāke rase pittāgnikṛllaghuḥ ॥

rūkṣoṣṇā rocanī kāsakaphavātāsraśvāsahā |

hanti hṛllāsatrṛkaṇḍūśirovastyāsyarugvamīḥ

॥kaiyadevanighaṇṭu - oṣadhivarga

bhadrailā bṛhadelā tu tripuṭā tripuṭodbhavā |

sthūlailā tvaksugandhā ca pṛthvikā kanyakā puṭā ॥

elā tiktā ca laghvī syātkaphavātaviṣavraṇān |

bastikaṇṭharujo hanti mukhamastakaśodhinī

॥dhanvantarinighaṇṭu - śatapuṣpādivarga

elā sthūlā ca bahulā pṛthvikā tripuṭāpi ca |

bhadrailā bṛhadelā ca candrabālā ca niṣkuṭīḥ ॥

sthūlailā kaṭukā pāke rase cānalakṛllaghuḥ |

rūkṣoṣṇā śleṣmapittāsrakaṇḍūśvāsatrṛṣāpahā |

hṛllāsaviṣabastyāsyāśīrorugvamikāsanut ||bhāvaprakāśa -  
pūrvakhaṇḍa - miśraprakaraṇa - karpūrādivarga  
sthūlailā bṛhadelā tripuṭā tridivodbhavā ca bhadrailā |  
surabhitvak ca mahailā pṛthvī kanyā kumārikā caindrī ||  
kāyasthā gopuṭā kāntā ghṛtācī garbhasambhavā |  
indrāṇī divyagandhā ca vijñeyā'sṭādaśāhvayā ||  
elādvayaṃ śītalatikṭamukṭaṃ sugandhi pittārtikaphāpahāri |  
karoti hṛdrogamalārtibastipustvaghnamatra sthvirā guṇāḍhyā  
||rājanighaṇṭu - pippalyādivarga

### **Traditional Ayurvedic benefits of black cardamom:**

Rochani - improves taste, useful in anorexia

Indicated in -

Kasa - cough, cold

Vatasra - Gout

Shwasa - asthma and chronic respiratory disorders

Hrullasa - nausea

Trushna - excessive thirst

Kandu - itching, pruritis

Shiroroga - headache

Vastiroga - diseases of urinary tract

Asyaroga - oral disorders

Vami - vomiting

Visha - Toxic conditions, poisoning

Kantaruja - throat pain, sore throat

### **Contraindication and side effects of greater cardamom:**

There is no special contra indication to use Brihat ela but persons suffering from hyper acidity have to minimize the use as excessive usage may cause hyperacidity and mouth ulcers.

### **Ayurvedic medicines containing greater cardamom:**

**Kalyanaka kashaya choorna:** This is a formulation in powder form which can be used to prepare decoction to treat anemia, itching, intoxication, schizophrenia and anxiety. This formulation is also indicated in infertility, loss of memory, amenorrhoea and fever.

**Varavisaladi kashaya:** This is a formulation in decoction form used to treat hysteria, psychosis, epilepsy, purities, delusion, loss of memory, poor digestion, asthma, anemia, poison, diabetes, fever and hypomenorrhoea.

**Kalamegasava:** This is an ayurvedic medicine in fermented liquid form used to treat chronic fever, anemia, acne, liver, spleen disorder and skin diseases. It also acts as mild laxative.

**Sarivadyasava:** This is an ayurvedic medicine in fermented liquid form used to treat gout, diabetes, diabetic carbuncles and related skin complications, skin infections and in rheumatism. It is a natural blood detox product.

**Kalyanaka Ghrita:** This medicine is in ghee base form used for 'snehakarma' in panchakarma practice for the treatment of cough, anemia, epilepsy, psychosis, schizophrenia, infertility, inflammatory conditions, fever, lack of memory etc.

**Eladi tailam:** This is a formulation in oil form for the treatment of treatment for skin diseases like allergic dermatitis, ring worm infection, urticaria, disease of the gums and ears. This formulation is also called as Eladi keram.

**Respicare tablet:** This is a proprietary ayurvedic medicine used in the treatment of frequent or persistent cold, running nose, nasal block, throat irritation, wheezing and difficulty in breathing.

**Alargin tablet:** This is a proprietary ayurvedic medicine used in the treatment of skin diseases such as rashes, contact dermatitis, oils, acne vulgaris, carbuncles, eczema, respiratory allergies, malfunctioning of liver and urinary system.

**Pathrina tablet:** This is a proprietary ayurvedic medicine used in the treatment of renal calculi and difficulty in micturition.

**Agatsya vyoshadi vataka lehyam:** This is a proprietary ayurvedic medicine in confectionary form, used in the treatment of sinusitis, headache, non productive cough and cold.

### **Research articles about Amomum subulatum:**

**Anti microbial activity:** Antimicrobial activity of petroleum

ether, methanol and aqueous extracts from leaves and roots, essential oil and isolated vasicine from *A. subulatum* were tested against various microorganisms. Antimicrobial activity was done by disc diffusion method. The zone of inhibition observed was compared with that of standard drugs, ciprofloxacin and fluconazole. The results of this study reveal that methanol extract of fruits of *A. subulatum* shows remarkable antimicrobial activity against *Escherichia coli* whereas in case of other microorganisms used it was found inferior to the standard drug used. Methanol extract of rind showed good antimicrobial activity against *Staphylococcus aureus*.

**Anti - inflammatory activity:** The present study assessed anti - inflammatory activity of the fruits extracts (methanolic and aqueous) of Brihat ela at a dose of 250 mg/kg and 500 mg/kg against carrageenan induced paw edema in rats. Both the extracts were able to show a dose dependent anti - inflammatory activity with compared to ibuprofen as a standard.

**Anti - oxidant property:** In the present study the ethanolic and aqueous extracts of leaves of *Amomum subulatum* is evaluated for antioxidant activity by the 1,1Diphenyl - 2 - picrylhydrazyle (DPPH) free radical scavenging activity, : - carotene bleaching assay and total phenolic contents methods.

The ethanolic extract showed significant antioxidant activity. The IC<sub>50</sub> of ethanolic extract, total phenolic content, and mean antioxidant activity are  $8.25 \pm 2.0$   $\mu\text{g/ml}$ ,  $11.04 \pm 0.2$ ,  $41.2 \pm 1.5\%$  respectively and that of ascorbic acid was  $2.0 \pm 0.14$   $\mu\text{g/ml}$  whereas BHA was found to be  $50.3 \pm 0.6$ . The study showed that the ethanolic extract consumption could exert beneficial effects due to its antioxidant activity.

### **Classical categorization:**

Bhavaprakasha - Karpooradi varga

Dhanvantari Nighantu - Shatapushpadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Shodala Nighantu - Shatapushpadi varga

Raja Nighantu - Pippalyadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Zingiberales

Family: Zingiberaceae

Genus: Amomum

Species: A. subulatum, A. costatum



## **26. Sponge Gourd: Benefits, Usage, Research, Remedies, Side Effects**

Sponge gourd, botanically, *Luffa aegyptiaca* is known as Dhamargava in Ayurveda. It is used in the treatment of skin disorders, poisoning, inflammatory conditions and high Kapha and Pitta Dosha.

Latin Name - *Luffa aegyptiaca* Mill., *Luffa cylindrica*

Family - Cucurbitaceae

### **Luffa aegyptiaca: Names in different languages:**

Hindi name - Nenua

English name - Smooth luffa, Sponge luffa, Vegetable sponge

Assamese Name - Bhul

Bengali Name - Dundul

Gujarati Name - Galkan

Kannada Name - Tuppa Heerekayi

Konkani Name - Gossale

Marati Name - Ghosale

Malayalam Name - Kattupechal

Tamil Name - Meeyuk Peerakanakai

Telugu name - Guttibeera

### **Synonyms of Dhamargava**

Raja Koshataki, Mahakoshataki - The fruit is bigger than koshataki fruit

Mahajalini - The fruit has numerous fibrous portion inside it

Sapeetaka, Peetapushpika - The plant has yellow flowers  
Koshaphala, Mahapahala - The fruit of the plant is elongated  
Dhamargava, Hastiparnika, Karkotaki, HastiGhosha,  
Krutavedhana

Dhamargava is a climber found all over the temperate regions of India. The fruit of the plant is smooth and cylindrical growing up to 30cm in length. Owing to its striking yellow flowers it is also used as ornamental plant. The plant is also called by the name Egyptian cucumber due to its origin in Egypt. Due to the use as a scrubbing sponge, it is also known by the common names **dishrag gourd, rag gourd, sponge gourd.**



### **Dhamargav medicinal Properties (of wild variety):**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry),  
Tikshna (Pungent)|

Vipaka - Katu (Undergoes to pungent taste conversion after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Action) - Kapha pitta hara (Pacifies kapha and pitta dosha) Vamaka (induces emesis), Vishagna (Controls the poison)

Prabhava (Special action) - Induces emesis and purgation

**Part used** - Fruit, Leaves

**Dosage** - Powder 3 - 6 g

Fresh juice 10 - 20 ml



**Chemical constituents of Luffa aegyptiaca (sponge gourd):**

The plant Luffa aegyptiaca contains saponins, lucyoside A - H.

The root of the plant contains pentacyclic triterpene bryonolic

acid. The plant also contains Bioflavonoids, oleanolic acid, Gypsogenin, Aegyptin A& B.

### **Medicinal uses of sponge gourd (*Luffa aegyptiaca*)**

- The fruit of Dhamargava is mainly used in panchakarma practice to induce emesis and purgation as part of shodhana karma.
- The shodhana procedure is done in cases of asthma, skin diseases to expel the vitiated kapha and pitta dosha from the body.
- *Luffa aegyptiaca* fruit is used to treat ingested poison by giving the fruit juice in a dose of 15 - 20 ml and inducing emesis.
- The paste of the leaves of the plant is applied over the local area to treat swelling.
- The leaf of the *Luffa aegyptiaca* plant is given in a dose of 10 - 15 ml to treat intestinal worms.
- The juice of the leaf and the whole plant acts like a blood purifier when consumed regularly in a dose of 5 - 10 ml.
- The juice of the fruit of Dhamargava is given in a dose of 10 - 15 ml to induce purgation and treat diseases like ascites, constipation.

राजकोशातकी हस्तिपर्णिका पीतपुष्पिका ।

धामार्गवः कोशफला महाजाली सपीतकः ॥

राजकोशातकी तित्ता मधुरा कफवातला ।

पित्तघ्नी दीपनी हन्ति श्वासकासज्वरकृमीन् ॥ कैयदेवनिघण्टु - ओषधिवर्ग

धामार्गवः कोशफला राजकोशातकी तथा ।

कर्कोटकी पीतपुष्पा महाजालि निरुच्यते ॥

महाकोशातकी धन्या हस्तिघोषा महाफला ।

धामार्गवो गदेष्विष्टः स्थिरेषु च महत्सु च ॥

कोशातकी सुतिकोष्णा पक्वामाशयशोधिनी ।

कासगुल्मोदरगरे वाते श्लेष्माशयस्थिते ॥

कफे च कण्ठवक्त्रस्थे कफसञ्चयनेषु च ।

अन्या स्वादुस्त्रिदोषघ्नी ज्वरस्यान्ते हिता स्मृता ॥ धन्वन्तरिनिघण्टु -

गुडूच्यादिवर्ग

धामार्गवः पीतपुष्पो जालिनी कृतवेधना ।

राजकोशातकी चेति तथोक्ता राजिमत्फला ॥

राजकोशातकी शीता मधुरा कफवातकृत् ।

पित्तघ्नी दीपनी श्वासज्वरकासकृमिप्रणुत् ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - शाकवर्ग

rājakośātakī hastiparṇikā pītapuṣpikā ।

dhāmārgavaḥ kośaphalā mahājālī sapītakāḥ ||  
rājakośātakī tiktā madhurā kaphavātalā |  
pittaghnī dīpanī hanti śvāsakāsajvarakṛmīn ||  
kaiyadevanighaṇṭu - ośadhivarga  
dhāmārgavaḥ kośaphalā rājakośātakī tathā |  
karkoṭakī pītapuṣpā mahājālī nirucyate ||  
mahākośātakī dhanyā hastighoṣā mahāphalā |  
dhāmārgavo gadeṣviṣṭaḥ sthireṣu ca mahatsu ca ||  
kośātakī sutiktoṣṇā pakvāmāśayaśodhinī |  
kāśagulmodaragare vāte śleṣmāśayasthite ||  
kaphe ca kaṇṭhavaktrasthe kaphasañcayaneṣu ca |  
anyā svādustridoṣaghnī jvarasyānte hitā smṛtā ||  
dhanvantarinighaṇṭu - guḍūcyādivarga  
dhāmārgavaḥ pītapuṣpo jālinī kṛtavedhanā |  
rājakośātakī ceti tathoktā rājimatphalā ||  
rājakośātakī śītā madhurā kaphavātakṛt |  
pittaghnī dīpanī śvāsajvarakāsakṛmipraṇut || bhāvaprakāśa -  
pūrvakhaṇḍa - miśraprakaraṇa - śākavarga

### **Ayurvedic description of uses of sponge gourd:**

Deepani - improves digestion strength

Indicated in -

Kasa - cough, cold

Shwasa - asthma and chronic respiratory disorders

Jwara - fever

Krumi - worm infestation

Gulma - Tumors of the abdomen

Udara - ascites, enlargement of the abdomen

Kantharoga - Throat and voice related disorders

**Adverse effect of Dhamargava:** As this herb can cause emesis and purgation, precaution must be taken if the formulation or any form of medicine containing Dhamargava is given to young children, old aged persons, during pregnancy and patients suffering from cardiac ailments and other systemic illness. Persons suffering from diarrhea, vomiting should not take formulations containing Dhamargava.

### **Research related to Dhamargava:**

[Anti - microbial activity of leaf extract:](#) Pulverized leaves of *Luffa aegyptiaca* was extracted with different solvents by Soxhlet extraction and phytochemicals were determined by color test. The antimicrobial investigations on the extracts against *Staphylococcus* species, *Corynebacterium ulcerans*, *Bacillus subtilis*, *Salmonella typhi*, *E - coli*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, *Neisseria gonorrhoeae*, and *Candida albicans* showed good activities with chloroform - extract exhibit the most potent antimicrobial activity.

[Fruit juice as source of peroxidase:](#) The studies made have shown that *Luffa aegyptiaca* (gourd) fruit juice contains peroxidase activity of the order of 180 enzyme unit/mL.

### **Classical categorization:**

Charaka Samhita -

Vamana - group of herbs that are used for inducing vomiting, in Vamana Panchakarma treatment,

Phalini - fruit group of herbs

### **Sushruta Samhita -**

Urdwabagahara - group of herbs that are used for inducing vomiting

Ubhayatobagahara - group of herbs that are useful both in Vamana and Virechana therapies.

Kaiyyadeva Nighantu - Oushadhi varga

Dhanvantari Nighantu - Guduchyadi varga

Bhavaprakasha - Shaka varga

### **Scientific classification**

Kingdom: Plantae

Order: Cucurbitales

Family: Cucurbitaceae

Genus: *Luffa*

Species: *L. aegyptiaca*



## **27. Ivy gourd: Benefits, Ayurveda Usage, Remedies, Research, Side Effects**

Ivy gourd, botanically *Coccinia indica* is known in Ayurveda as Bimbi. This well known vegetable plant is described for the treatment of intestinal worms, skin diseases, for inducing emesis and purgation in panchakarma therapy.

Latin Name - *Coccinia indica* W & A, *Coccinia grandis*

Family - Cucurbitaceae

### **Names in different languages:**

Hindi name - Kunduru, Tirkol

English Name - Ivy gourd, Scarlet gourd, Kowai

Bengali name - Telakucha

Gujarati Name - Tindora, Gove

Kannada Name - Tondekai

Marathi Name - Tadali

Malayalam Name - Kovakka

Punjabi Name - Kanduri

Telugu name - Kaki donda, donda

Tamil name - Kovaikkai



## **Sanskrit Synonym of Bimbi -**

Tundikeri/ Tundika - The ripened red color of the fruit resembles the color of beak of parrot.

Raktaphala - The ripened fruit is blood red in color

Ashtopama Phala - ripe fruit resembles lips in shape and colour

Oshta upama phala - The color of the ripened fruit resembles red color like that of lips

Vidruma phala, Ushnaphala, Dantachada, Peeluparnika



Bimbi plant is a climber, growing all over the temperate region of India. There are 2 varieties available - bitter variety available in the forests and the sweet variety cultivated as vegetable and used for culinary purpose. The fruits of the plant are oblong growing 4 - 6 cm long, having whitish lines in the surface. The plant is a native to African and Asian continent and grows wildly as a weed.



### **Ivy gourd - Coccinia grandis - medicinal Properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Cause dryness), Teekshna (Strong)

Veerya (Properties) - Ushna (Hot in potency)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Karma (Action) - Kaphapittahara (reduces the vitiated kapha)

and pitta dosha)



**Part used** - Leaves, Root (Medicinal purpose), Fruit (as vegetable)

**Dosage -**

Juice: 10 - 15 ml

Root: 3 - 6 g



**Chemical constituents:**

The fruit of the plant contains beta - amyryn and its acetate,

lupeol, B - Sitosterol, Taraxerol and cucurbitin B. Cephalandrol, cephalandrine A & B are found from the aerial parts. The root of the plant contains starch and carbohydrate.



### **Uses of Ivy Gourd - Bimbi:**

- The root of the Coccinia grandis is made into paste and given in a dose of 3 - 5 g daily to control **bed wetting** in young children.
- The tender fruit of bimbi is chewed raw to treat mouth ulcers.
- The leaves of Coccinia indica are heated mildly and wrapped around the place of swelling to reduce swelling and pain associated with it.

- The fresh juice of the leaves is given in a dose of 10 - 15ml to treat wounds.
- The fresh juice of the leaves and root of Coccinia indica is given in a dose of 15 - 20 ml to control diabetes.
- The paste of the leaves is applied over the area affected with eczema and ringworm.
- The juice of the leaves and fruits of Coccinia indica is given in a dose of 20 - 25 ml to treat jaundice.
- The sweet variety of the bimbi fruit is used as vegetable.

बिम्बी रक्तफला चोष्णफला विद्रुमपाक्यपि ॥

दन्तच्छदातुण्डिकेरी तुण्डी गोल्हा च तुण्डिकी ।

तुण्डिकेरफभा विद्रुमफला पीलुपर्णिका ॥

बिम्बी स्वाद्वी रसे पाके वामन्यश्लेष्मला जयेत् ।

रक्तपित्तक्षयश्वासपाण्डुश्वयथुकामलाः ॥

शाकं तु मधुरं तिक्तं कषायं शीतलं लघु ।

सङ्ग्राहि कटुकं पाके वातलं कफपित्तजित् ॥

तिक्तं प्रसूनं पित्तघ्नं तत्परं कामलापहम् ।

बिम्बीफलं स्वादु शीतं स्तम्भनं लेखनं गुरु ॥

पितास्रदाहशोफघ्नं वाताध्मानविबन्धकृत् ।

तिक्तबिम्बीफलं तिक्तं पित्तघ्नं वातकोपनम् ॥

विषघ्नमतिरुच्यं स्याद् गुरु श्लेष्मकरं न च ।

शोफास्रपाण्डून् जयति न मेध्यं छर्दिकृत् परम् ॥ कैयदेवनिघण्टु -

ओषधिवर्ग

बिम्बी रक्तफला तुण्डी तुण्डिकेरफला च सा ।

ओष्ठोपमफला गोल्हा पीलुपर्णी च तुण्डिका ॥

तुण्डिका कफपित्तासृक्शोफपाण्डुज्वरापहा ।

श्वासकासापहा तज्जं फलं वातकफापहम् ॥

बिम्बिफलं स्वादु शीतं स्तम्भनं लेखनं गुरु ।

पित्तास्रदाहशोफघ्नं वाताध्मानविबन्धकृत् ॥ धन्वन्तरिनिघण्टु -

गुडूच्यादिवर्ग

बिम्बी रक्तफला तुण्डी तुण्डीकेरी च बिम्बिका ।

ओष्ठोपमफला प्रोक्ता पीलुपर्णी च कथ्यते ॥

बिम्बीफलं स्वादु शीतं गुरु पित्तास्रवातजित् ।

स्तम्भनं लेखनं रुच्यं विबन्धाध्मानकारकम् ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - शाकवर्ग

## Raja Nighantu - 2 varieties - Tikta Tundi and Madhura bimbi

### तिक्ततुण्डी

तिक्ततुण्डी तु तिक्ताख्या कटुका कटुतुण्डिका ।

बिम्बी च कटुतिक्तादितुण्डीपर्यायगा च सा ॥

कटुतुण्डी कटुस्तिका कफवान्तिविषापहा ।

अरोचकास्रपित्तघ्नी सदा पथ्या च रोचनी ॥ राजनिघण्टु - गुडूच्यादिवर्ग

अथ भवति मधुरबिम्बी मधुबिम्बी स्वादुतुम्बिका तुण्डी ।

रक्तफला रुचिरफला सोष्णफला पीलुपर्णी च ॥

बिम्बी तु मधुरा शीता पित्तश्वासकफापहा ।

असृग्ज्वरहरा रम्या कासजिद्रहबिम्बिका ॥ राजनिघण्टु - मूलकादिवर्ग

शय्यामूत्रविनाशाय विम्बीमूलभवो रसः। (भै.र)

bimbī raktaphalā coṣṇaphalā vidrumapākyapi ॥

dantacchadātuṇḍikerī tuṇḍī golhā ca tuṇḍikī ।

tuṇḍikeraphabhā vidrumaphalā pīluparṇikā ॥

bimbī svādvī rase pāke vāmanyaśleṣmalā jayet ।

raktapittakṣayaśvāsapāṇḍuśvayathukāmalāḥ ॥

śākaṃ tu madhuraṃ tiktaṃ kaṣāyaṃ śītaṃ laghu ।

saṅgrāhi kaṭukaṃ pāke vātalaṃ kaphapittajit ॥

tiktaṃ prasūnaṃ pittaghnaṃ tatparaṃ kāmalāpaham ।



bimbīphalaṃ svādu śītaṃ stambhanaṃ lekhaṇaṃ guru ||  
pitāsrādāhaśophagnaṃ vātādhmānavibandhakṛt |  
tiktabimbīphalaṃ tiktaṃ pittagnaṃ vātakopanaṃ ||  
viśaghnamatirucyaṃ syād guru śleṣmakaraṃ na ca |  
śophāsrāpāṇḍūn jayati na medhyaṃ chardikṛt param ||  
kaiyadevanighaṇṭu - oṣadhivarga

bimbī raktaphalā tuṇḍī tuṇḍikeraphalā ca sā |  
oṣṭhopamaphalā golhā pīluparṇī ca tuṇḍikā ||  
tuṇḍikā kaphapittāsrksōphapāṇḍujvarāpahā |  
śvāsakāsāpahā tajjaṃ phalaṃ vātakaphāpaham ||  
bimbīphalaṃ svādu śītaṃ stambhanaṃ lekhaṇaṃ guru |  
pittāsrādāhaśophagnaṃ vātāghmānavibandhakṛt ||  
dhanvantarinighaṇṭu - guḍūcyādivarga

bimbī raktaphalā tuṇḍī tuṇḍikerī ca bimbikā |  
oṣṭhopamaphalā proktā pīluparṇī ca kathyate ||  
bimbīphalaṃ svādu śītaṃ guru pittāsravātajit |  
stambhanaṃ lekhaṇaṃ rucyaṃ vibandhādhmānakāarakam ||  
bhāvaprakāśa - pūrvakhaṇḍa - miśraprakaraṇa - śākavarga  
Raja Nighantu - 2 varieties - Tikta Tundi and Madhura bimbi  
tiktatūṇḍī  
tiktatūṇḍī tu tiktākhyā kaṭukā kaṭutuṇḍikā |  
bimbī ca kaṭutiktādītuṇḍīparyāyagā ca sā ||

kaṭutuṇḍī kaṭustiktā kaphavāntiviṣāpahā |  
arocakāsrapiṭtaghnī sadā pathyā ca rocanī || rājanighaṇṭu -  
guḍūcyādivarga  
atha bhavati madhurabimbī madhubimbī svādutumbikā tuṇḍī |  
raktaphalā ruciraphalā soṣṇaphalā pīluparṇī ca ||  
bimbī tu madhurā śītā pittaśvāsakaphāpahā |  
asṛgjavaraharā ramyā kāsajidgṛhabimbikā || rājanighaṇṭu -  
mūlakādivarga  
śayyāmūtravināśāya vimbīmūlabhavo rasaḥ| (bhai.ra)

### **Ayurvedic uses:**

#### **Ivy gourd fruit and root:**

Vamani - excess usage may induce vomiting.

Ashleshmala - balances down Kapha Dosha

Indicated in -

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Kshaya - depletion of body tissues, weight loss, tuberculosis

Shwasa - asthma and chronic respiratory disorders

Kasa - cough, cold

Pandu - anemia

Shvayathu - Swelling, inflammation

Kamala - Jaundice, Liver diseases

#### **Ivy gourd leaves:**

Madhura - sweet

Tikta - bitter

Sheetala - coolant

Laghu - light to digest

Sangrahi - absorbent, useful in diarrhea, IBS

Katu Vipaka (taste conversion after digestion) - pungent

Vatala - increases Vata Dosha

Balances Kapha and Pitta Dosha

The bitter ivy gourd calms down Pitta and is useful in Kamala -  
Jaundice, Liver diseases

### **Sweet Ivy gourd fruit:**

Svadu - sweet

Sheeta - coolant

Stambhana - blocks the channel, useful in diarrhea, bleeding disorders

Lekhana - has scraping property, useful in balancing Kapha, in respiratory disorders and in cholesterol / clot deposition in blood vessels

Guru - heavy to digest

Vatadhmanakrut - may cause bloating, gaseous distension of abdomen

Vibandhakrut - may cause constipation

### **Indicated in -**

Pittasra - Raktapitta - Bleeding disorders such as nasal

bleeding, heavy periods, etc

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Shopha - inflammation

### **Bitter Coccinia grandis fruit -**

Pittaghna - Calms down Pitta

Vatakopana - can cause increase of Vata Dosha

Vishaghna - anti - toxic, useful in poisoning

Ruchya - improves taste, relieves anorexia.

Guru - heavy to digest

Medhya - improves intelligence

Chardikrut - can induce vomiting

### **Indicated in -**

Shopha - inflammation

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Pandu - anemia

**Adverse action:** There is no known or reported action of bimbi fruit. The bitter variety of the fruit may cause nausea and vomiting in some persons. It is also said in ayurveda that regular intake of bimbi phala may cause decreased intelligence level though no scientific studies have been carried out in this regard.

## **Ayurvedic medicines containing Bimbi:**

**Vastyamayantaka ghrita:** This medicine has ghee as its base. It is used for preparatory procedure for Panchakarma and also as medicine, used in the treatment of diseases related to urinary system. Vasti means urinary bladder. Amaya means disease. Hence this ghee is widely used for urinary system diseases.

**Galacto plus granules:** This is a proprietary ayurvedic medicine in granules form given for increasing and improving the breast milk in lactating women.

## **Research articles on Bimbi:**

**Anti - hyperglycemic effect:** Chronic administration of kundru fruit extracts (200mg/kg) for 14 days reduces the blood glucose level of the diabetes induced animals as compared to diabetic control group. There was significant decrease in the blood glucose level in the 7<sup>th</sup> [p<0.01] and 14<sup>th</sup> [p<0.001] days of the diabetes induction, showing anti diabetic effect of the concern fruit.

**Anti - microbial activity:** The bioactive compounds of fruits of *Coccinia indica* were investigated for antibacterial activity against some pathogenic bacteria. The aqueous extracts did not show much significant activity, while the organic extracts (petroleum ether and methanol) showed the highest activity against the test bacteria.

The activity was more pronounced on gram - positive organisms with *Staphylococcus aureus* being more susceptible and *Salmonella paratyphi A* being more resistant.

**Anti - inflammatory and analgesic action:** This study was aimed to evaluate both post - and pre - treatment anti - inflammatory activities of the aqueous extract of fresh leaves of *Coccinia indica* in rats using the carrageenan - induced paw oedema method at various dose levels. Analgesic and antipyretic properties were evaluated using tail flick model and yeast - induced hyperpyrexia, respectively. The extract produced marked analgesic activity comparable to morphine at 300 mg/kg, which suggests the involvement of central mechanisms.

**Reno protective action:** In the present study, the effect of *Coccinia indica* consumption on diabetes - mediated kidney damage was determined. Various parameters, such as fasting blood glucose, urine sugar, albumin excretion, kidney index, and glomerular filtration rate, were ameliorated to various extents by the supplementation of *C. indica* in the diet. Additionally, diabetic rats fed with diet supplemented with *C. indica* fruits or leaves showed improvement in glucose tolerance compared to control diabetic rats. They also exhibited beneficial effects on key antioxidant enzymes of the kidney.

### **Classical categorization:**

Charaka Samhita - Moolini - Herbs with root as used part

Sushruta Samhita - Urdhwabagahara - group of herbs that are used for inducing vomiting

Dhanvantari Nighantu - Guduchayadi varga

Bhavaprakasha - Shaka varga - vegetable group

Kaiyyadeva Nighantu: Oushadhi varga

Raja Nighantu - Guduchayadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Cucurbitales

Family: Cucurbitaceae

Genus: Coccinia

Species: Coccinia indica, Coccinia grandis

## **28. Bitter Gourd (Karela): Benefits, Remedies, Research, Side Effects**

Bitter gourd or Bitter melon, botanically, *Momordica charantia* is a well known Indian vegetable, useful for the treatment of diabetes, intestinal worms, skin disease, wounds and acts as blood purifier.

Latin Name - *Momordica charantia* Linn.

Family - Cucurbitaceae

### **Bitter melon: Names in different languages:**

Hindi name - Karela

English name - Bitter gourd, Balsam pear, Bitter melon

Bengali Name - Karla, Uchhe

Gujarati Name - Kareli

Kannada Name - Hagalakai

Marathi Name - Karle

Malayalam Name - Kaippakka

Tamil Name - Pavaikkari

Telugu name - Kakar





### **Sanskrit Synonyms of karela:**

Kathillam, Sushavi, Kandira, Kandakatuka, Sukanda,  
Ugrakanda, Katilla,

Karavellaka is a climber growing in the temperate region of India. It is cultivated for its vegetable use. The flowers are yellow in color and the fruit has triangular ridges in the outer side and grows up to 15 - 20 cm in length. The fruit is bitter in taste.

### **Momordica charantia - Medicinal properties:**

Rasa (Taste) - Tikta (Bitter), Katu (Pungent)

Guna (Qualities) - Laghu (Light), Ruksha (Dry)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Action) - Kapha pitta hara (reduces vitiated kapha and pitta dosha), Deepana (induce appetite)



**Part used** - Leaf, Fruit

**Dosage** - Fresh juice 10 - 20 ml.

**Bitter gourd - Chemical constituents:**

The fruit contains 5 - hydroxytryptamine, charantin, diosgenin, lanosterol and betasitosterol. It also contains bitter principles cucurbitacin glycosides. The fruits and seeds yields polypeptide insulin called as p - insulin, alpha and beta glycoproteins. The seed also contains hypoglycemic constituent vicine. Another protein called as MRK - 29 is found in the smaller variety of bitter guard.

**Medicinal uses of Bitter melon:**

- The juice of the fresh fruit of karavellaka is given in a dose of 20 - 25 ml to reduce the sugar level in blood.
- The paste of the leaf of Momordia charantia is applied over the area affected with skin diseases like eczema. The paste is also applied to treat wounds and external pile mass.
- The fresh juice of the fruit is given in a dose of 15 - 20 ml to treat intestinal worms, anorexia and liver disorders.
- The fruit is cut into small pieces and given to treat cases of fever.
- The juice of the fruit and leaves of karavellaka is given to treat conditions of amenorrhea and to purify the breast milk (as sthanya shodhana).
- The juice of the fruit is consumed daily in a dose of 20 - 25 ml to detox the blood and act like a blood purifier.
- The fruit is used as a vegetable and is found in many cuisines all over the world.

काण्डीरं काण्डकटुकं सुकाण्डं कारवेल्लकम् ।

उग्रकाण्डं कठिल्लः स्यान् नासासंवेदनः पटुः ॥

कारवेल्लदलं पथ्यं कृमिहृत् पित्तलं परम् ।

कारवेल्लं सकटुकं कटुपाकमवातलम् ॥

दीपनं भेदनं तिक्तमवृष्यमहिमं लघु ।

हन्त्यरोचकपित्तास्रकफं पाण्डुव्रणकृमीन् ॥

श्वासकासप्रमेहास्रकोठकुष्ठज्वरानपि ।

क्षुद्राक्षं कारवेल्लं तु लघूष्णं कृमिवातजित् ॥

दीपनं स्वादु पथ्यं च सर्वश्रेष्ठं च तद् दिदुः ।

कारवेल्लीफलं वन्यं ज्वरार्शःकृमिनाशनम् ॥

कासघ्नं दीपनं हृद्यं सतिक्तं कफवातजित् ।

तद्गुणाकारवल्ली स्यात् विशेषाद् दीपनी लघुः ॥ कैयदेवनिघण्टु -

ओषधिवर्ग

कारवेल्लं कठिल्लं स्यात्कारवेल्ली ततो लघुः ।

कारवेल्लं हिमं भेदि लघु तिक्तमवातलम् ।

ज्वरपित्तकफास्रघ्नं पाण्डुमेहकृमीन्हरेत् ।

तद्गुणा कारवेल्ली स्याद्विशेषाद्दीपनी लघुः ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - शाकवर्ग

कारवेल्लं कटु ग्राहि दीपनं कफजित्परम् ।

अवृष्यं वातलं रुच्यं भगभ्रंशापहा जटा ॥ सोढलनिघण्टु - गुडूच्यादिवर्ग

kāṇḍīraṃ kāṇḍakaṭukaṃ sukāṇḍaṃ kāravellakam ।

ugrakāṇḍaṃ kaṭhillah syān nāsāsaṃvedanaḥ paṭuḥ ॥

kāravelladalaṃ pathyaṃ kṛmihṛt pittalaṃ param |  
kāravellaṃ sakaṭukaṃ kaṭupākamavāṭalam ||  
dīpanaṃ bhedanaṃ tiktamavr̥ṣyamahimaṃ laghu |  
hantyarocakapittāsrakaphaṃ pāṇḍuvraṇakṛmīn ||  
śvāsakāsapramehāsrakoṭhakuṣṭhajvarānapi |  
kṣudrākṣaṃ kāravellaṃ tu laghūṣṇaṃ kṛmivātajit ||  
dīpanaṃ svādu pathyaṃ ca sarvaśreṣṭhaṃ ca tad diduḥ |  
kāravellīphalaṃ vanyaṃ jvarārśaḥkṛmināśanam ||  
kāśaghnaṃ dīpanaṃ hr̥dyaṃ satiktaṃ kaphavātajit |  
tadguṇākāravallī syāt viśeṣād dīpanī laghuḥ ||  
kaiyadevanighaṇṭu - oṣadhivarga

kāravellaṃ kaṭhillaṃ syātkāravellī tato laghuḥ |  
kāravellaṃ himaṃ bhedi laghu tiktamavāṭalam |  
jvarapittakaphāsragnaṃ pāṇḍumehakṛmīnharet |  
tadguṇā kāravellī syādvīśeṣāddīpanī laghuḥ || bhāvaprakāśa -  
pūrvakhaṇḍa - miśraprakaraṇa - śākhavarga  
kāravellaṃ kaṭu grāhi dīpanaṃ kaphajitparam |  
avr̥ṣyaṃ vāṭalaṃ rucyaṃ bhagabhraṃśāpahā jaṭā ||  
soḍhalanighaṇṭu - guḍūcyādivarga

## **Ayurvedic uses of Karela:**

### **karela leaves -**

Pathya - can be taken as part of food

Pittala - Increases Pitta Dosha

Krumihara - useful in worm infestation, infected wounds

### **Bitter melon Fruit -**

Deepana - improves digestion strength

Bhedana - causes mild laxative effect

Avrushya - Un - aphrodisiac

### **Indicted in -**

Arochaka - anorexia

Pittasra - Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Pandu - anemia

Vrana - Ulcers, wounds

Krumi - worm infestation

Shwasa - asthma and chronic respiratory disorders

Kasa - cough, cold

Prameha - Urinary tract disorders, diabetes

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Kotha - allergic skin disorder

Kushta - skin diseases

Jwara - fever

### **How to consume bitter lemon?**

Fruits are made into slices, put into mixer to extract juice. Juice is readily consumed in 10 - 30 ml, by many diabetic patients.

This is a very bitter remedy.

Boiled fruits are consumed.

It is used as similar to any vegetable.

### **Adverse effects of Bitter gourd:**

Reported side effects include diarrhea, abdominal pain, fever, hypoglycemia, urinary incontinence, and chest pain. Symptoms were generally mild, did not require treatment, and resolved with rest.

### **Ayurvedic medicines containing Karela as ingredient:**

**Brihat Sarwa Jwarahara Lauh:** This is an ayurvedic medicine in tablet form and is given to treat all types of fever. This formulation contains metals in its powder form.

**Aragwadadi kashaya:** This is an ayurvedic medicine in decoction form used for the treatment of various skin diseases, wounds and kaphaja jwara.

**Diabac tablet:** It is a proprietary ayurvedic medicine used to treat diabetes and complications arising out of the disease.

**Glukostat capsule:** Glukostat Capsule is a pancreatic stimulant and insulin sensitizer and is used in diabetic condition.

**Diabegon capsule:** Diabegon Capsule is a proprietary Ayurvedic medicine, manufactured by Dindayal Industries Ltd, Gwalior. It is used in the treatment of diabetes.

**Choles capsule:** It is a proprietary ayurvedic medicine used to treat hyper lipidemia.

**Nidd forte tablets:** It is a proprietary ayurvedic medicine used to treat non - insulin dependent diabetes.

**Limit capsules:** It is a proprietary ayurvedic medicine used to treat non - insulin dependent diabetes.

### **Research articles on Karavellaka:**

**Anti - diabetic effect:** It has been estimated that up to one - third of patients with diabetes mellitus use some form of complementary and alternative medicine. Abundant pre - clinical studies have documented in the anti - diabetic and hypoglycemic effects of *M. charantia* through various postulated mechanisms. However, clinical trial data with human subjects are limited and flawed by poor study design and low statistical power. The present review is an attempt to highlight the anti - diabetic activity as well as phytochemical and pharmacological reports on *M. charantia*.

**Anti - malarial benefit:** This experiment investigated the effects of *M.charantia* L. and *M.jalapa* L. on malaria in a 4 - day suppressive test. Animals received 50, 100, or 200 mg/kg of methanolic extracts orally. *M.charantia* and *M. jalapa* methanolic extracts had intrinsic antimalarial properties that were dose - dependent. The result showed that *M.charantia* was effective in suppressing malaria at the highest dose tested (200 mg/kg) while *M. jalapa* gave the highest chemo



suppression of parasitemia at the lowest tested dose of 50 mg/kg body weight of mice.

**To control obesity:** *Momordica charantia* (bitter melon, BM) is a traditional Chinese food and well known for its function of reducing body weight gain and insulin resistance. In this study, C57BL/6 mice were fed high fat diet (HFD) with or without BM for 12 weeks. BM - contained diets ameliorated HFD - induced obesity and insulin resistance. Histological and real - time PCR analysis demonstrated BM not only reduced macrophage infiltration into epididymal adipose tissues (EAT) and brown adipose tissues (BAT). Flow cytometry show that BM could modify the M1/M2 phenotype ratio of macrophages in EAT.

**Hepato - protective action:** The aim of this study was to investigate the anti - hyperglycemic activity of *Momordica charantia* fruit on alloxan induced diabetic mice and its antitoxic effect on liver. Mice were alloxanized (alloxan monohydrate 150 mg/kg body weight administered intraperitoneally) and aqueous extract of *Momordica charantia* at the rate of 100 mg/kg body weight was administered for 21 days to evaluate its anti - hyperglycemic activity. There serum glucose levels as well as the Liver Function Tests (LFT) - SGPT, SGOT and total bilirubin levels were analyzed statistically using ANOVA and Dunnett's tests

### **Classical categorization:**

Charaka samhita - Tikta skanda - bitter group of herbs

Sushruta samhita - Aragwadadi gana

Vagbhata - Aragwadadi gana

Bhavaprakasha - Shaka varga

Kaiyyadeva Nighantu - Oushadhi varga

Shodala Nighantu - Guduchyadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Cucurbitales

Family: Cucurbitaceae

Genus: Momordica

Species: M. charantia

## **29. Carrot (Gajar): Benefits, Remedies, Research, Side Effects**

Carrot is an excellent vegetable with good amounts of anti oxidants. In Ayurveda pharmacopoeia for the treatment of piles, diarrhea, localized swelling and diseases related to uterus.

Latin Name - *Daucus carota* Linn.

Family - Umbelliferae

### **Names in different languages:**

Hindi name - Gajar

English name - Carrot

Marathi name - Gajar

Kannada name - Gajjari, Carrot

Telugu name - Gajaru gadda

In other Indian languages the word 'carrot' itself is used, mostly for convenience.



## **Synonyms synonyms of Carrot -**

Grunjana, Gajaram, Shikimoola

Naranga varnaka, Naranga Kanda, Peetaka - The tuber is having orange color.

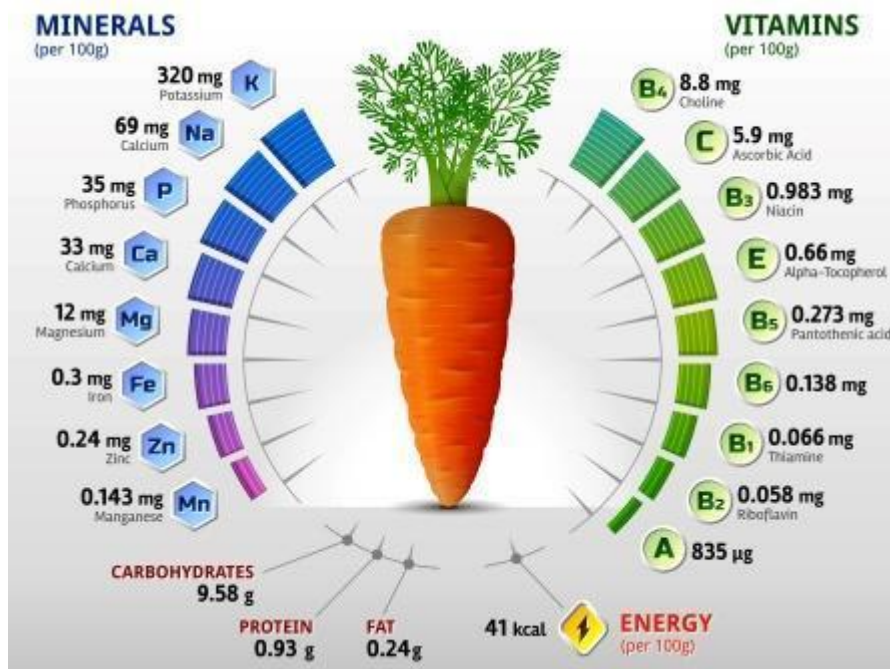
Yavaneshta - Liked by the westerners

Vartula - cylindrical shape

Granthimoola - nodular tubor

Shikhimoola, Shikhakanda, Dindeeramodaka,

Carrot is an annual herb with tuberous root bearing white clustered flowers. It is cultivated all over India in the regions having cold and temperate climate. The plant is a native to temperate regions of Europe and southwest Asia, and naturalized to North America and Australia. When they were first cultivated, carrots were grown for their aromatic leaves and seeds rather than their roots. The carrot (*Daucus carota* sub sp. *sativus*) is a root vegetable, usually orange in color, though purple, black, red, white, and yellow varieties exist.



### Carrot - medicinal properties:

Rasa - Madhura (Sweet), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Tikshna (Pungent)

Vipaka - Madhura (undergoes sweet taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kapha vatahara (reduces vitiated kapha and vata dosha), Deepana (induce appetite), Grahi

The seed of the carrot acts as an abortifacient.

**Part used** - Root, Seed

**Dosage** - Powder 1 - 3 g

### Chemical constituents:

Carrot contains flavones including apigenein, chrysin and luteolin. The furanocoumarins, 8-methoxypsoralen and 5-methoxypsoralen are found in the carrot plant. The seed oil

contains terpinen - 4 - ol which is a renal irritant and can cause diuretic activity. In cooked carrot beta carotene content is higher than in raw carrot. The tuber of the plant contains alpha and beta carotenes.



### **Daucus carota medicinal uses:**

- Carrot is used as vegetable all over the world, for its culinary benefits in the form of raw salads and in cooked form.
- The cooked carrot tuber is consumed to treat the condition of piles.
- Carrot is consumed raw to strengthen the cardiac muscles.
- The seed of the carrot is used as abortifacient in the early stages of pregnancy.

- Fresh juice of carrot is consumed in a dose of 25 - 30 ml to treat cases of irritable bowel syndrome.
- The fresh juice of carrot is consumed daily to treat cases of vitamin A deficiency, to improve the appetite.
- Consumption of carrot regularly can regulate the outflow of sweat and control the bad odor due to sweat.
- Consuming carrot regularly can boost the immunity of the person as the vegetable contains anti - oxidants.
- Slightly heated and peeled carrots are mixed with sugar candy to bring down the blood pressure in hypertensive patients.
- The cold infusion prepared from the carrot acts like liver protector agent.

गृञ्जनं गाजरं प्रोक्तं तथा नारङ्गवर्णकम् ।

गाजरं मधुरं तीक्ष्णं तिक्तोष्णं दीपनं लघु ।

संग्राहि रक्तपित्तार्शोग्रहणीकफवातजित् ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - शाकवर्ग

नारङ्गकन्दः गजरं पीतकं गृञ्जनस्तथा ॥

गृञ्जनः कटुकः पाके तीक्ष्णोष्णस्तिक्तको लघुः ।

विदाही दीपनो हृद्यो ग्राही रूक्षोऽस्रपित्तकृत् ॥

ग्रहण्यर्शोऽनिलक्ष्मदृक्शुक्रारुचिजन्तुजित् । कैयदेवनिघण्टु -  
ओषधिवर्ग

गन्धाकृतिरसैस्तुल्यो गृञ्जनस्तत्पलाण्डुना ।

सूक्ष्मनालाग्रपत्रत्वाद् भिद्यतेऽसौ पलाण्डुतः ॥

तीक्ष्णो गृञ्जनको ग्राही पित्तलोऽर्शोविनाशनः ।

गृञ्जनस्य प्रवालानि तिक्तानि कटुकानि च ॥

कफमेदःकृमिघ्नानि तीक्ष्णान्यक्षिहितानि च । कैयदेवनिघण्टु -

ओषधिवर्ग

गृञ्जनं शिखिमूलञ्च यवनेष्ठञ्च वर्तुलम् ।

ग्रन्थिमूलं शिखाकन्दं कन्दं डिण्डीरमोदकम् ॥

गृञ्जनं कटुकोष्णं च कफवातरुजापहम् ।

रुच्यं च दीपनं हृद्यं दुर्गन्धं गुल्मनाशनम् ॥ राजनिघण्टु - मूलकादिवर्ग

बीजं चोष्णम् मतं चास्य वृष्यं वै गर्भपातकृत् ॥ (रा.नि)

grñjanam gājaram proktaṃ tathā nāraṅgavarṇakam ।

gājaram madhuraṃ tikṣṇaṃ tiktoṣṇaṃ dīpanaṃ laghu ।

saṃgrāhi raktapittārśograhaṇīkaphavātajit ॥ bhāvaprakāśa -

pūrvakhaṇḍa - miśraprakaraṇa - śākavarga



nāraṅgakaṇḍaḥ gajaraṃ pītakaṃ gr̥ñjanastathā ||  
gr̥ñjanaḥ kaṭukaḥ pāke tīkṣṇoṣṇastiktako laghuḥ |  
vidāhī dīpano hr̥dyo grāhī rūkṣo'srapittakṛt ||  
grahaṇyaśo'nīlaśleṣmadr̥kaśukrārucijantujit |  
kaiyadevanighaṇṭu - oṣadhivarga

gandhākṛtīrasaistulyo gr̥ñjanastatpalāṇḍunā |  
sūkṣmanālāgrapatratvād bhidyate'sau palāṇḍutaḥ ||  
tīkṣṇo gr̥ñjanako grāhī pittalo'rśovināśanaḥ |  
gr̥ñjanasya pravālāni tiktāni kaṭukāni ca ||  
kaphamedah̥kr̥mighnāni tīkṣṇānyakṣihitāni ca |  
kaiyadevanighaṇṭu - oṣadhivarga

gr̥ñjanaṃ śikhimūlañca yavaneṣṭhañca vartulam |  
granthimūlaṃ śikhākandaṃ kandaṃ ḍiṇḍīramodakam ||  
gr̥ñjanaṃ kaṭukoṣṇaṃ ca kaphavātarujāpahaṃ |  
rucyaṃ ca dīpanaṃ hr̥dyaṃ durgandhaṃ gulmanāśanam ||  
rājanighaṇṭu - mūlakādivarga

bījaṃ coṣṇam mataṃ cāsya vṛṣyaṃ vai garbhapātakṛt|| (rā.ni)

### **Carrot benefits as per Ayurveda:**

Deepana - improves digestion strength

Sangrahi - absorbent, useful in diarrhea, IBS

Laghu - light to digest

**Indicated in -**

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Arsha - haemorrhoids

Grahani - IBS, sprue, altering diarrhea and constipation

Arsha - haemorrhoids

Druk roga - eye disorders

Aruchi - anorexia

Jantu - worm infestation

**Side effects and Contraindication:**

The seed of the carrot should be avoided during pregnancy as it can cause abortion.

Excess usage is to be avoided in diabetic people with uncontrolled blood sugar levels.

**Formulations containing Garjara:**

**Nobab capsules:** This is a proprietary ayurvedic medicine used to treat primary and secondary amenorrhea and dysmenorrhoea.

**Abana tablet:** This is a proprietary ayurvedic medicine used to treat variety of heart related disorders such as high cholesterol, cardiac pain etc. It normalizes lipid profile - Lowers low density lipoprotein cholesterol [LDL], very low density lipoprotein

cholesterol [VLDL] and triglycerides levels. It increases the high density lipoprotein cholesterol [HDL] levels.

**Pause capsules:** This is a proprietary ayurvedic medicine used to treat Secondary amenorrhea, oligomenorrhoea, irregular periods, and menstrual disorders.

### **Research articles about *Daucus carota*:**

**Anti - oxidant activity:** Antioxidants and antioxidant capacity of seven colored carrots were determined. Five anthocyanins, chlorogenic acid, caffeic acid, and four carotenoids were quantified by HPLC. Total phenolic content was determined according to the Folin-Ciocalteu method. Antioxidant capacities of the hydrophilic and hydrophobic fractions were determined by using the 2,2'-azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) (ABTS) and 2,2'-diphenyl-1-picrylhydrazyl (DPPH) methods. The relative antioxidant capacity index was determined.

**Nephro - protective action in rats:** Nephro toxicity in rats was induced by intra peritoneal administration of gentamicin (100 mg/kg/day) for 8 days. Gentamicin intoxication induced elevated serum urea, BUN, uric acid, and creatinine levels which was found to be significantly ( $P < 0.01$ ) decreased in a dose - dependent manner in groups received *D. Carota* which was also evidenced by the histological observations.

Hepato protective action in rats: Oral administration of carrot extract (25?mL/kg/day) for 30 days produced significant hepatoprotection against lindane (20?mg/kg/day) induced hepatotoxicity in rats. The increased levels of serum enzymes namely aspartate transaminase, alanine transaminase, alkaline phosphatase and the levels of thiobarbituric acid reactive substances, cholesterol, triglycerides and LDL - cholesterol in lindane administered rats were observed to be decreased significantly in the lindane?+?carrot extract group. The carrot extract also restored the depressed antioxidants and HDL - cholesterol levels to near normal.

Health benefits of carrot seed extract: Anti - diabetic, cholesterol and cardiovascular disease lowering, anti - hypertensive, hepato - protective, reno - protective and wound healing benefits of carrot have also been reported. The cardio - and hepato - protective, anti - bacterial, anti - fungal, anti - inflammatory, and analgesic effects of carrot seed extracts are also noteworthy.

### **Classical categorization:**

Bhavaprakasha - Poorvakanda - Shakavarga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Moolakadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Apiales

Family: Apiaceae

Genus: Daucus

Species: *D. carota*

### **30. Ridge Gourd: Benefits, Remedies, Research, Side Effects**

Koshataki - Luffa acutangula is a herb mentioned in Ayurveda for the treatment of skin diseases, splenomegaly, swelling and for inducing purgation and emesis as part of shodhana therapy in panchakarma.

Latin Name - Luffa acutangula (Linn.) Roxb.

Family - Cucurbitaceae

#### **Names in different languages:**

Hindi name - Taroi, Kharro, Nenua / Gilki / Chikni Turai /

Kalitori Tharoayi

English name - Ridge gourd, Ribbed gourd, angled luffa

Assamese Name - Zika, Bhul

Bengali Name - Ghinga, Jhinga

Gujarati Name - Ghisoda, Turiya, Turia / Sirola

Kannada Name - Heerekayi, Heerakai

Konkani Name - Gossale

Marati Name - Shirola, Dodaki, Dodka / Doadakee

Malayalam Name - Peechinga

Tamil Name - Peerakangai, Pirkkankai

Telugu name - Adavi beera, Beera kaya, Beera Kayi,

Neyangnattakolu

Konkani name - Ghossaley / Gosalen

Oriya name - Janchi / Jahni

Punjabi name - Kalitori

Tulu name - Peerae, Peere.



### **Sanskrit Synonyms -**

Koshataki - Has many seeds and pulp

Mridanga phala - Resembles mridanga (a type of musical instrument)

swadu phala - sweet fruit

Jalini - The pulp is fibrous and resembles mesh when ripened

Rajimatphala, Dharaphala - The fruit is having ridges

Peetapushpika, Mahatpushpa - Plant has yellow and big flower

Hastikosha, Shweta Ghosha, Ghantali, Krutavedhana, Karkoti,

Jalini, Karkashacchada,

**Types:** There are two types of Koshataki. One variety is bitter which is used for medicinal purpose and the second variety is non - bitter and used as vegetable all over the country. The classical ayurvedic texts have described these as Koshataki

(wild variety and bitter) and Raja koshataki(cultivated and used as vegetable)

Koshataki is a climber growing all over India in the temperate climate. The non - bitter variety of koshataki is used as vegetable and is cultivated all over the country



**Ridge gourd medicinal properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry), Tikshna (Pungent)

Vipaka - Katu (Undergoes to pungent taste conversion after digestion)

Veerya (Potency) - Ushna (Hot)



Karma (Action) - Kapha pitta hara (Pacifies kapha and pitta dosha) Vamaka (induces emesis), Deepana (induces appetite)

|Prabhava (Special action) - Induces emesis and purgation



**Part used** - Fruit, Leaves

**Dosage** -

Powder 3 - 6 g

Fresh juice 10 - 20 ml

**Major chemical Constituents** -

The fruit of the plant contains Cucurbitacin B, E and oleanolic acid. Koshataki contains triterpene saponins.

**Uses of Koshataki:**

The juice of the fruit of koshataki is given for the purpose of

emesis and purgation, done as poorvakarma in panchakarma therapy.

The decoction of Luffa acutangula is given in a dose of 10 - 20ml to treat various skin diseases.

The juice of the fruit of koshataki plant is given in a dose of 10 - 20 ml to treat hepatomegaly, splenomegaly and inflammation of the gastric mucosa.

The fruit juice is given in a dose of 10 - 15ml to induce emesis and reduce the symptoms of asthma.

The juice of the fruit is given in a dose of 10 ml to treat conditions of intestinal worm infestation.

The paste of the leaves of Luffa acutangula is applied externally to treat localized swelling and insect bites.

The non - bitter variety of Kosataki is used as vegetable and is commonly found in many recipes.

The seeds of ridge gourd are ground and administered as nasya to treat headache. The fruit juice is also administered as Nasya (nasal drops) for the same purpose.

श्वेतघोषा कृमिछिद्रा घण्टाली कृतवेधना ।

मृदङ्गवत्कोशवती मृदङ्गफलिका तथा ॥

कोशातकी तु कर्कोटी जालिनी कर्कशछदा ।

क्ष्वेडः सत्तिको घण्टालीज्योत्स्नाजाली तु घोषकः ॥

कोशातकी कटुस्तीक्ष्णा पक्वामाशयशोधनी ।

लघ्वी रूक्षा कटुःपाके जयेत् कासगरोदरम् ॥

पाण्डुशोफकफप्लीहगुल्मार्शःकुष्ठकामलाः ।

फलमस्याः कटु स्निग्धं तिक्तं पाके हिमं लघु ॥

दीपनं भेदनं हृद्यं वातलं हन्त्यरोचकम् ।

कासमेहज्वरश्वासकुष्ठपित्तकफानिलान् ॥ कैयदेवनिघण्टु ओषधिवर्ग

Raja Koshataki

राजकोशातकी हस्तिपर्णिका पीतपुष्पिका ।

धामार्गवः कोशफला महाजाली सपीतकः ॥

राजकोशातकी तिक्ता मधुरा कफवातला ।

पित्तघ्नी दीपनी हन्ति श्वासकासज्वरकृमीन् ॥ कैयदेवनिघण्टु ओषधिवर्ग

Maha Koshataki

अन्यात्वैभी हस्तिघोषा महत्पुष्पा सपीतिका ।

महाकोशातकी तासां कथितं जाङ्गलं फलम् ॥

हस्तिघोषा सरा स्निग्धा मधुरा श्लेष्मला गुरुः । कैयदेवनिघण्टु ओषधिवर्ग

कोशातकी सुतिकोष्णा पक्वामाशयशोधिनी ।

कासगुल्मोदरगरे वाते श्लेष्माशयस्थिते ॥

कफे च कण्ठवक्त्रस्थे कफसञ्चयनेषु च ।

अन्या स्वादुस्त्रिदोषघ्नी ज्वरस्यान्ते हिता स्मृता ॥

कोशातकी कृतच्छिद्रा जालिनी कृतवेधनी ।

क्ष्वेडा सुतिका घण्टाली मृदङ्गफलिका मता ॥

क्ष्वेडस्तिकः कटुस्तीक्ष्णोऽप्रगाढश्च प्रशस्यते ।

कुष्ठपाण्डुवामयप्लीहशोफगुल्मगरादिषु ॥ धन्वन्तरिनिघण्टु -

गुडूच्यादिवर्ग

**महाकोशातकी** प्रोक्ता हस्तिघोषा महाबला ।

धामार्गवो घोषकश्च हस्तिपर्णश्च स स्मृतः ।

महाकोशातकी स्निग्धा रक्तपित्तानिलापहा ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - १०. शाकवर्ग

धामार्गवः पीतपुष्पो जालिनी कृतवेधना ।

**राजकोशातकी** चेति तथोक्ता राजिमत्फला ॥

राजकोशातकी शीता मधुरा कफवातकृत् ।

पित्तघ्नी दीपनी श्वासज्वरकासकृमिप्रणुत् ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - १०. शाकवर्ग

कोशातकी स्वादुफला सुपुष्पा कर्कोटकी स्यादपि पीतपुष्पा ।

धाराफला दीर्घफला सुकोशा धामार्गवः स्यान्नवसञ्जकोऽयम् ॥

धाराकोशातकी स्निग्धा मधुरा कफपित्तनुत् ।

ईषद्वातकरी पथ्या रुचिकृद्बलवीर्यदा ॥ राजनिघण्टु - ७. मूलकादिवर्ग

कोशातकी कफार्शोघ्नी पक्वामाशयशोधनी ।

रसे तिक्ता कटुः पाके पित्तजिद्धातवह्निकृत् ॥

तद्वत्फलं च तद्वीजं नस्यान्नासाशिरोर्तिजित् । सोढलनिघण्टु गुडूच्यादिवर्ग

śvetaghoṣā kṛmichidrā ghaṇṭālī kṛtavedhanā ।

mṛdaṅgavatkośavatī mṛdaṅgaphalikā tathā ॥

kośātakī tu karkoṭī jālinī karkaśachadā ।

kṣvedāḥ satikto ghaṇṭālījyotsnājālī tu ghoṣakaḥ ॥

kośātakī kaṭustikṣṇā pakvāmāśayaśodhanī ।

laghvī rūkṣā kaṭuḥpāke jayet kāsagarodaram ॥

pāṇḍuśophakaphapliḥagulmārśaḥkuṣṭhakāmalāḥ ।

phalamasyāḥ kaṭu snigdham tiktaṁ pāke himaṁ laghu ॥

dīpanaṁ bhedanāṁ hr̥dyaṁ vātalaṁ hantyarocakam ।

kāsamehajvaraśvāsakuṣṭhapittakaphānilān ||  
kaiyadevanighaṇṭu oṣadhivarga

Raja Koshataki

rājakośātakī hastiparṇikā pītapuṣpikā |  
dhāmārgavaḥ kośaphalā mahājālī sapītakah ||  
rājakośātakī tiktā madhurā kaphavātalā |  
pittaghnī dīpanī hanti śvāsakāsajvarakṛmīn ||  
kaiyadevanighaṇṭu oṣadhivarga

Maha Koshataki

anyātvaibhī hastighoṣā mahatpuṣpā sapītikā |  
mahākośātakī tāsāṃ kathitaṃ jāṅgalaṃ phalam ||  
hastighoṣā sarā snigdḥā madhurā śleṣmalā guruḥ |  
kaiyadevanighaṇṭu oṣadhivarga

kośātakī sutiktoṣṇā pakvāmāśayaśodhinī |  
kāśagulmodaragare vāte śleṣmāśayasthite ||  
kaphe ca kaṇṭhavaktrasthe kaphasañcayaneṣu ca |  
anyā svādustridoṣaghnī jvarasyānte hitā smṛtā ||  
kośātakī kṛtacchidrā jālinī kṛtavedhanī |  
kṣveḍā sutiktā ghaṇṭālī mṛdaṅgaphalikā matā ||  
kṣveḍastiktaḥ kaṭustīkṣṇo'pragāḍhaśca praśasyate |  
kuṣṭhapāṇḍvāmayaplihaśophagulmagarādiṣu ||  
dhanvantarinighaṇṭu - guḍūcyādivarga

mahākośātakī proktā hastighoṣā mahābalā |  
dhāmārgavo ghoṣakaśca hastiparṇaśca sa smṛtaḥ |  
mahākośātakī snigdḥā raktapittānilāpahā || bhāvaprakāśa -  
pūrvakhaṇḍa - miśraprakaraṇa - 10. śākavarga  
dhāmārgavaḥ pītapuṣpo jālinī kṛtavedhanā |  
rājakośātakī ceti tathoktā rājimatphalā ||  
rājakośātakī śītā madhurā kaphavātakṛt |  
pittaghnī dīpanī śvāsajvarakāsaḥmiḥpraṇut || bhāvaprakāśa -  
pūrvakhaṇḍa - miśraprakaraṇa - 10. śākavarga

kośātakī svādupalā supuṣpā karkoṭakī syādapi pītapuṣpā |  
dhārāphalā dīrghaphalā sukośā dhāmārgavaḥ  
syānnavaśaṅjñako'yam ||  
dhārākośātakī snigdḥā madhurā kaphapittanut |  
īśadvātakarī pathyā rucikṛdghalavīryadā || rājanighaṇṭu - 7.  
mūlakādivarga

kośātakī kaphārśoghni pakvāmāśayaśodhanī |  
rase tiktā kaṭuḥ pāke pittajidvātavahnikṛt ||  
tadvatphalaṃ ca tadbījaṃ nasyānnāsāsīrortijit |  
śodhanighaṇṭu guḍūcyādivarga

## **Ayurvedic benefits of ridge guard:**

### **Ridge gourd whole plant -**

Pakvashaya shodhini - cleanses large intestine

Amashaya shodhini - cleanses stomach and small intestines

Indicated in -

Kasa - cough, cold

Garavisha - chronic poisoning

Udara - ascites, enlargement of the abdomen

Pandu - anemia

Shopha - inflammation

Pleeha - Disease of the spleen, Splenomegaly

Gulma - Tumors of the abdomen

Arsha - haemorrhoids

Kushta - skin diseases

Kamala - Jaundice, Liver diseases

### **Ridge gourd fruit -**

Katu - pungent

Snigdha - unctuous, oily

Tikta - bitter

Hima - coolant

Laghu - light to digest

Deepana - improves digestion strength

Bhedana - mild laxative

Hrudya - acts as cardiac tonic, congenial for heart



Vatala - increases Vata Dosha

Balances Kapha and Pitta Dosha

Indicated in -

Arochaka - anorexia

Kasa - cough, cold

Meha - diabetes, urinary tract disorders

Jwara - fever

Shwasa - asthma and chronic respiratory disorders

Kushta - skin diseases

The sweet variety of ridge gourd balances all the three Doshas and is ideal to consume soon after fever is relieved.

The well formed rAjakoshAtaki fruit appeases the pitta doSha and is best suitable as a wholesome food to be partaken.

It is beneficial in the conditions like mahAgada [fever], cachexia, inebriated state, exhaustion, general debility, urinary disorders, fistula in ano, ulcers over the surface of skin and pittaja disorders.

**Side effects of ridge gourd:** As this variety can cause emesis and purgation, precaution must be taken if the formulation or any form of medicine containing koshataki is given to young children, old aged persons, during pregnancy and patients suffering from cardiac ailments and other systemic illness. Persons suffering from diarrhea, vomiting should not take formulations containing koshataki.

However no adverse effect is seen in the non - bitter variety of koshataki, which is used as vegetable.

### **Ayurvedic medicines containing Luffa acutangula**

**Patolamooladi kashayam:** It is an ayurvedic medicine in decoction form given for the treatment of skin disease, piles, jaundice, IBS, liver diseases.

**Mahamanjishtadi kashayam:** An ayurvedic medicine in decoction form given to treat various skin diseases, gout, syphilis, ulcers and obesity.

### **Research articles related to koshataki:**

**Anti - diabetic and Anti - hyperlipidemic activity:** The extracts of the plant were screened for in vitro anti - oxidant activity. The effect of different extracts of LA in the management of diabetes and related complications were determined. The study revealed that the methnolic extract at a dose of 100mg/kg was found to be active for anti - diabetic activity and anti - hyperlipidemic activity.

**Anti - cancer activity:** In vitro studies were carried out to evaluate the cytotoxic potential of the ethanolic and aqueous extracts of Luffa acutangula against human neuronal glioblastoma cells (U343) and human lung cancer cells (A549). Screening of these extracts was done using the brine shrimp lethality bioassay, MTT assay and SRB assay. The results showed the significant decrease of the viability of the cells in a

concentration - dependent manner. The ethanolic and aqueous extracts of *Luffa acutangula* showed significant cytotoxic activity in both MTT and SRB assay. In brine shrimp lethality bioassay also aqueous extract showed more potent cytotoxicity as compared to ethanolic extract.

**Anti - oxygenic activity:** Ridge gourd pulp and peel powders as well as their various solvent fractions were evaluated for antioxygenic activity using different methods. Ridge gourd pulp and peel powders as well as their extracts were evaluated for their antioxygenic activity using linoleic acid peroxidation,  $\beta$  - carotene - linoleic acid bleaching and 1,1 - diphenyl - 2 - picryl - hydrazyl (DPPH) methods. Ethanol/water extracts from ridge gourd pulp and peel showed highest antioxygenic activity followed by water extracts, while the petroleum ether extract showed moderate antioxygenic activity. Ridge gourd peel powder and its extracts showed slightly higher antioxygenic activity than ridge gourd pulp powder and its extracts. This may be attributed to the presence of higher amounts of phenolics and flavonoids which have been reported as potential antioxidants.

### **Classical categorization:**

Charaka Samhita

Vamana - group of herbs that are used for inducing vomiting,

in Vamana Panchakarma therapy

Phalini - fruit group of herbs

Sushruta Samhita

Urdwabagahara - group of herbs that are used for inducing vomiting

Ubhayatobagahara - group of herbs that are useful both in Vamana and Virechana therapies.

Kaiyyadeva Nighantu - Oushadhi varga

Dhanvantari Nighantu - Guduchyadi varga

Bhavaprakasha - Shaka varga

Raja Nighantu - Moolakadi varga

Shodala Nighantu - Guduchyadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Cucurbitales

Family: Cucurbitaceae

Genus: Luffa

Species: Luffa acutangula

### **31. Choraka: Angelica glauca: Benefits, Remedies, Research, Side Effects**

Choraka - Angelica glauca is a plant described in Ayurveda and is used in the treatment of various skin diseases, bites of poisonous animals, fever, rhinitis and psychiatric disorders.

Latin Name - Angelica glauca Edgew

Family - Apiaceae

#### **Names in different languages:**

Hindi Name - Chora

Punjabi Name - Chora

#### **Sanskrit Synonyms:**

Taskara, Kopana, Chorakakya, Nishachara, Kshemaka, Dhanhar  
Choraka is a shrub growing to a height of 1 - 4 m in height and is found in India in the Himalayan range at an altitude of 8000 to 10000 feet. The flowers of the plant are whitish to pale green and purple and found in clusters.

**Angelica** is a genus of about 60 species of tall biennial and perennial herbs, native

to temperate and subarctic regions of the Northern

Hemisphere, reaching as far north as Iceland and Lapland and Greenland.

#### **Angelica glauca medicinal Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Properties) - Laghu (Light for digestion), Ruksha (Dry)

Veerya (Potency) - Ushna (Hot)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Karma (Action) - Kapa vata hara (Reduces the vitiated kapha and vata dosha), Hridya (Strengthens Heart muscles), Sanjnasthapakaa (induces alertness)

**Part used** - Root

**Dosage** - Powder: 1 - 3 g

**Chemical constituents:**

The root of choraka plant contains furocoumarins, dimeric, lingusticum lactone. The root also contains about 1.5% volatile oils.

**Uses of Choraka:**

- Oil prepared from the herb choraka is used for massage to control fever;
- The oil is also used as nasal drops to treat rhinitis.
- Since the oil prepared from *Angelica glauca* is having pleasant smell, it is used for cosmetic purpose by applying in little quantity to the body or to the clothes to give a pleasant fragrance.
- The powder of the root is consumed in a dose of 3 - 4 g to strengthen the heart muscles.
- The powder of the root of choraka is given in a dose of 2 - 3 g with honey to treat cough and dyspnea.

- The powder of the root of choraka is applied externally over the area affected with skin diseases like eczema, redness of skin due to insect bite.
- The powder of the root is given in a dose of 3 - 4 g to treat psychic or mental disorders.
- The powder of the plant is consumed to improve the memory power of persons with low I.Q
- The powder of Angelica glauca acts effectively against cases of snake poison and scorpion poison. The paste of the root is applied over the affected site and also administered internally to counter act the poison.
- The powder of choraka induces appetite and improves the evacuation of the bowels when given in a dose of 3 - 5g with hot water.

चोरकः शङ्कितश्चण्डा दुष्पत्रः क्षेमको रिपुः ।

गणहासः कोपनकः कितवः फलचोरकः ॥

चोरकः शिशिरोऽत्यन्तं विषरक्तान्तकारकः ।

कुष्ठकण्डूव्रणान्हन्ति क्षणाद्दोषान्प्रयोगतः ॥

चोरकश्चोग्रगन्धश्च तिक्तः कृमिसमीरजित् ॥ धन्वन्तरिनिघण्टु -

चन्दनादिवर्ग

चोरको गोपनः क्षेमो दुष्पत्रः दुःकुलो रिपुः ।

विषमाशुक्रो धूर्तः शङ्कितो गणहासकः ॥

फलचौरो दौःकुलेयस्तस्करः कितवोऽपरः ।

क्रोधना पिशुना चन्द्र चोरी शिखिनिका शठी ॥

चोरको मधुरस्तिकः कटुपाकः कटुर्लघुः ।

तीक्ष्णो ह्यो हिमो हन्ति कुष्ठकण्डूकफानिलान् ॥

रक्षोऽश्रीस्वेदमेदोऽस्रज्वरगन्धविषप्रणान् । कैयदेवनिघण्टु - १.

ओषधिवर्ग

चोरको मधुरस्तिकः कटु पाके कटुर्लघुः।

तीक्ष्णओ ह्योऽहिमो हन्ति कुष्ठकण्डूकफानिलान्॥

रक्षोऽश्रीस्वेदऽस्रज्वरगन्धविषप्रणान्॥ (भा.प्र)

corakaḥ śaṅkitaścaṇḍā duṣpatraḥ kṣemako ripuḥ ।

gaṇahāsaḥ kopanakaḥ kitavaḥ phalacorakaḥ ॥

corakaḥ śíśiro'tyantam viṣaraktāntakāraḥ ।

kuṣṭhakaṇḍūvraṇānhanti kṣaṇāddoṣānprayogataḥ ॥

corakaścogragandhaśca tiktaḥ kṛmisamīrajit ॥ dhanvantarinighaṇṭu -

candanādivarga

corako gopanaḥ kṣemo duṣpatraḥ duḥkulo ripuḥ ।

viṣamāśukaro dhūrtaḥ śaṅkito gaṇahāsaḥ ॥

phalacauro dauḥkuleyastaskaraḥ kitavo'paraḥ ।

krodhanā piśunā candra caurī śikhinikā śaṭhī ॥

corako madhurastiktaḥ kaṭupākaḥ kaṭurlaghuḥ ।



tīkṣṇo hr̥dyo himo hanti kuṣṭhakaṇḍūkaphānilān ||  
rakṣo'śrīsvedamedo'srajvaragandhaviṣavraṇān | kaiyadevanighaṇṭu - 1.  
oṣadhivarga  
corako madhurastiktaḥ katu pāke kaṭurlaghuḥ|  
tīkṣṇao hahyo'himo hanti kuṣṭhakaṇḍūkaphānilān||  
rakṣo'śrīsveda'srajvaragandhaviṣapraṇān|| (bhā.pra)

**Contraindication:** No adverse reaction is reported of the herb choraka when administered in a proper dose.

### **Ayurvedic medicines containing Chorak:**

**Mahapaishachika ghrita:** It is an ayurvedic medicine having ghee as base and is used in the treatment of epilepsy, memory loss, pshyco somatic disorders.

- **Nishoshiradi taila:** It is an ayurvedic medicine in oil form and is used to treat diabetic carbuncles, abscess and wounds.
- **Sarvamayanthaka ghrita:** It is a medicine in ghee form used to treat cases of gout, Parkinson's disease, neck stiffness, locked jaw, paralysis, thigh cramps, muscle cramps, liver diseases, dyspnoea, asthma, chronic bronchitis, vaginitis, pain in urinary bladder region, abdominal pain, pain in chest, in all types of fevers. This is effective in insanity and epilepsy.
- **Prabanjana vimardana taila:** A medicine explained in ayurvedic pharmacopoeia in the form of oil, for the

treatment of abscess due to Vata, hernia, abdominal colic, facial palsy, neuro - muscular conditions due to Vata imbalance and backache. It is very effective if applied externally in pounding pain, pricking pain, numbness and loss of strength.

- **Triphaladi taila:** It is medicated oil used for the treatment of headache, hair fall, grey hairs, splitting of hairs, sinusitis and rhinitis.
- **Sahacharadi taila:** Medicated oil told in Ayurveda for the treatment of Vata diseases, tremors, convulsions, psychosis, stiffness of thigh, muscle cramps, and muscle wasting. It is also used to treat gynecological diseases.
- **Bala ashwagandadi taila:** Medicated oil useful in the treatment of headache, fever, emaciation, muscle wasting, lack of strength in joints, muscles and bones. It is used in all Vata diseases like arthritis, neuralgia, paralysis, insanity etc.  
It strengthens muscle, improves quality of blood.
- **Mahanarayana taila:** It is a popular ayurvedic oil used for the treatment of Facial palsy, Hearing loss, Deafness, Paraplegia, tremors, neck rigidity/torticollis, Lock jaw, wasting of hands and legs, insanity, Oligospermia, Female Infertility, Teeth & tongue ailments, bloating, Headache,

Glossal palsy, Dental Pain, Mania/Psychosis, Hump - back/Kyphosis and fever.

- **Classical categorization:**

Charaka Samhita - Sanjasthapana

Sushruta - Eladi gana

Vagbhata - Eladi gana

Dhanvantari Nighantu - Chandanadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Shodala Nighantu - Chandanadi Varga

- **Scientific classification**

Kingdom: Plantae

Order: Apiales

Family: Apiaceae

Tribe: Selineae

Genus: Angelica

## **Kadamba: Neolamarckia cadamba: Benefits, Remedies, Research, Side Effects**

Kadamba - *Neolamarckia cadamba*, is a herb mentioned in the Ayurvedic pharmacopoeia for the treatment of wounds, conjunctivitis, mouth ulcers, diarrhea, Irritable bowel syndrome and diseases related to the urinary tract.

Latin Name - *Neolamarckia cadamba*

Synonymous botanical names -

*Nauclea cadamba* Roxb.

*Anthocephalus cadamba*(Roxb.)

*Anthocephalus indicus* var. *glabrescens* H.L.Li

*Anthocephalus morindifolius*

*Nauclea megaphylla*

*Neonauclea megaphylla*(S.Moore) S.Moore

*Samama cadamba* (Roxb.)

*Sarcocephalus cadamba*

**Family** - Rubiaceae

### **Names in different languages:**

Hindi Name - Kadam

English Name - Burflower tree, Leichhardt pine, laran, kadam

Bengali Name - Kadamgach

Gujarathi Name - Kadamb

Marathi Name - Rajakadamba

Kannada Name - Kadamba

Tamil Name - Vellai kadambam



**Sanskrit Synonyms:**

Vritta pushpa - The flowers are round in shape

Halipriya, Haripriya - Liked by the farmers

Lalanapriya - liked by women

Suvasa - good fragrance

Priyaka - Looks pleasant to the eyes

Sindhupushpa - Available in Sindhu pradesha

Neepa, Pulaki, Kadambarya, Kutsitambha,

Kadamba is an evergreen, tropical tree native to South and Southeast Asia. A fully mature kadam tree can reach up to 45 m in height. It is a large tree with a broad crown and straight cylindrical bole. Kadam flowers are sweetly fragrant, red to orange in color, occurring in dense, globular heads of approximately 5.5 cm (2.2 in) diameter.

**Properties:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Ruksha (Dry in nature)

Veerya (Potency) - Sheeta (Cold)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Prabava (Special action) - Vedanasthapana (Pain reliever)

Karma (Actions) - Tridosahara (Pacifies all the three dosha)

**Part used** - Bark and Fruit

**Dosage -**

Powder of bark - 3 to 6 g

Fruit juice - 10 - 20 ml

**Chemical constituents:**

The dried bark of the tree contains alkaloids, steroids, reducing sugars, cinchotannic acid and tanins (about 4.6%). The ether - soluble alkaloid of the bark shows anti - bacterial activity.



### **Uses of Kadamba:**

- The paste of the leaves of kadamba are tied over the wound or area affected with localized pain and swelling to reduce the complaints.
- The decoction of the bark of Neolamarckia cadamba is used to wash the infected wound.
- The decoction of the bark of the plant is used for gargling to treat mouth ulcers and inflammation of the gums.
- The decoction of kadamba is taken in a dose of 30 - 40 ml to treat diarrhea and irritable bowel syndrome.
- The powder of the bark of the tree is given with sugar candy in a dose of 5 - 6 g to treat nausea and vomiting.
- The juice of the fruit of kadamba is given in a dose of 40 - 50 ml to treat excessive sweating, thirst and burning sensation of the body.

- The decoction of the root of Neolamarckia cadamba is taken in dose of 30 - 40 ml to treat urinary tract infection and renal calculi.
- The decoction of the bark of the tree is consumed in a dose of 30 - 40 ml to treat fever.
- The paste of the bark of kadamba is applied over black spots and pimples.
- The fresh juice of the leaf is consumed in a dose of 10 - 15 ml to treat leucorrhoea and increased menstrual flow.
- The fresh juice of the fruit is useful to increase the breast milk in lactating women.
- The paste prepared from the bark of stem and leaf of kadamba is useful to treat pain, redness and itching due to insect bite.

कदम्बको वृत्तपुष्पः पुलकी पर्वताह्वयः ॥

कादम्बर्यः कुत्सिताम्भो परो नर्तापहारकः ।

हरिप्रियः प्रावृषेण्यो नीपो गिरिकदम्बकः ॥

कदम्बः शिशिरो ग्राही कषायो लवणो गुरुः ।

निहन्ति योनिदोषास्रकृच्छदाहविषव्रणान् ॥

शीतवीर्यं तत्प्रवालं कषायं दीपनं लघु ।

रक्तपितातिसारघ्नमरोचकविनाशनम् ॥



अम्लं तस्य फलं रुच्यं वीर्योष्णं श्लेष्मलं गुरु ।

पक्वं वातहरं साम्लं कफपित्तप्रकोपनम् ॥ कैयदेवनिघण्टु - ओषधिवर्ग

कदम्बो वृत्तपुष्पश्च नीपस्तु ललनाप्रियः ।

कादम्बर्यः अङ्कवृक्षोऽन्यः सुवासः कर्णपूरकः ॥

धाराकदम्बः प्रावृष्यः कादम्बर्यो हरिप्रियः ।

नीपो धूलिकदम्बोऽन्यः सुवासो वृत्तपुष्पकः ॥

कदम्बस्तु कषायः स्याद्रसे शीतो गुणोऽपि च ।

व्रणसंरोहणश्चापि कासदाहविषापहः ॥ धन्वन्तरिनिघण्टु - आम्रादिवर्ग

कदम्बः प्रियको नीपो वृत्तपुष्पो हलिप्रियः ।

कदम्बो मधुरः शीतः कषायो लवणो गुरुः ।

सरो विष्टम्भकृद्रूक्षः कफस्तन्यानिलप्रदः ॥ भावप्रकाश - - पूर्वखण्ड

मिश्रप्रकरण - पुष्पवर्ग

कदम्बो वृत्तपुष्पश्च सुरभिर्ललनाप्रियः ।

कादम्बर्यः सिन्धुपुष्पो मदाढ्यः कर्णपूरकः ॥

कदम्बस्तित्तकटुकः कषायो वातनाशनः ।

शीतलः कफपित्तार्तिनाशनः शुक्रवर्धनः ॥ राजनिघण्टु - प्रभद्रादिवर्ग

kadambako vṛttapuṣpaḥ pulakī parvatāhvayaḥ ॥

kādambaryaḥ kutsitāmbho paro nartāpahāraḥ ।

haripriyaḥ prāvṛṣeṇyo nīpo girikadambakaḥ ||  
 kadambaḥ śíśiro grāhī kaṣāyo lavaṇo guruḥ |  
 nihanti yonidoṣāsrakṛcchadhāhaviṣavraṇān ||  
 śītavīryaṃ tatpravālaṃ kaṣāyaṃ dīpanaṃ laghu |  
 raktapitātisāraghnamarocakavināśanam ||  
 amlaṃ tasya phalaṃ rucyaṃ vīryoṣṇaṃ śleṣmalaṃ guru |  
 pakvaṃ vātaharaṃ sāmīlaṃ kaphapittaprapakopanam ||  
 kaiyadevanighaṇṭu - oṣadhivarga  
 kadambo vṛttapuṣpaśca nīpastu lalanāpriyaḥ |  
 kādambaryaḥ aṅkavr̥kṣo'nyaḥ suvāsaḥ karṇapūrakaḥ ||  
 dhārākadambaḥ prāvṛṣyaḥ kādambaryo haripriyaḥ |  
 nīpo dhūlikadambo'nyaḥ suvāso vṛttapuṣpakaḥ ||  
 kadambastu kaṣāyaḥ syādrase śīto guṇo'pi ca |  
 vraṇasaṃrohaṇaścāpi kāsadhāhaviṣāpahaḥ ||  
 dhanvantarinighaṇṭu - āmrādivarga  
 kadambaḥ priyako nīpo vṛttapuṣpo halipriyaḥ |  
 kadambo madhuraḥ śītaḥ kaṣāyo lavaṇo guruḥ |  
 saro viṣṭambhakṛdrūkṣaḥ kaphastanyānilapradah ||  
 bhāvaprakāśa - pūrvakhaṇḍa - miśraprakaraṇa - puṣpavarga  
 kadambo vṛttapuṣpaśca surabhirlalanāpriyaḥ |  
 kādambaryaḥ sindhupuṣpo madāḍhyaḥ karṇapūrakaḥ ||  
 kadambastiktakaṭukaḥ kaṣāyo vātanāśanaḥ |  
 śītalaḥ kaphapittārtināśanaḥ śukravardhanaḥ || rājanighaṇṭu -  
 prabhadrādivarga

## **Ayurvedic benefits of Kadamb:**

Shishira - coolant

Grahi - absorbent, useful in diarrhea, IBS

Guru - heavy to digest

Vrana Ropana - heals wounds

Vishtambhakrut - causes constipation

Shukravardhana - improves sperm and semen quantity and quality

Indicated in -

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Atisara - diarrhoea, dysentery

Arochaka - anorexia

Visha - Toxic conditions, poisoning

Kasa - cough, cold

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

## **Unripe Fruit -**

Amla - sour taste

Ruchya - improves taste, relieves anorexia.

Ushna - hot

Shleshmala - increases Kapha Dosha

Guru - heavy to digest

## **Ripe fruit -**

Balances Vata and increases Kapha and Pitta Dosha.

### **Adverse action:**

No adverse reactions are seen or reported after using Kadamba alone or in formulations.

It causes constipation.

### **Formulations containing Kadamba:**

**Nyagrodhadi kashaya:** It is an ayurvedic medicine in decoction form used for the treatment of all pitta ailments, wounds, raktapitta, thirst, diarrhoea, fractures and vaginal diseases.

**Grahanimihira taila:** It is medicated oil useful to treat diarrhoea, fever, cough, Asthma, Malabsorption syndrome, Hiccup, Jaundice, Urinary disorders, Thirst, colicky pain etc. This oil is used externally to treat wrinkled skin and external piles mass.

**Glymnema tablet:** This is a proprietary Ayurvedic medicine used for the management of diabetes.



### **Research articles about Neolamarckia cadamba:**

**Analgesic, Anti - pyretic and Anti - inflammatory action:** The methanol extract of Neolamarckia cadamba barks showed significant analgesic, anti - inflammatory and antipyretic activity. The anti - inflammatory activity using carrageenan and antipyretic activity in yeast - induced pyrexia in rats were also examined.

**Anti - diabetic activity:** Different doses of ethanolic fraction of stem bark of Neolarckia cadamba were evaluated for hypoglycemic activity in normal and alloxan diabetic rats. The oral administration of ethanolic extract of 0.5g/kg body weight exhibited a significant antihyperglycemic activity in alloxan diabetic rats, whereas in normal rats no hypoglycemic activity was observed.

**Anti - ulcer and anti - oxidant property:** The antiulcer activity of Aqueous and Methanolic extracts of *Neolamarckia cadamba* leaves and bark was investigated in Pylorus ligation and Aspirin induced ulcer models in Wistar albino rats. Aqueous extract of *Neolamarckia cadamba* leaves (AENCL) at dose of 200mg/kg and 400 mg/kg produced significant inhibition of gastric lesion induced by Pylorus ligation induced ulcer and Aspirin induced gastric ulcer. The AENCL (200mg/kg and 400mg/kg) showed significant ( $p < 0.05$ ) reduction in gastric volume, pH, free acidity, Total acidity, ulcer index and % ulcer inhibition was compared to control. Antioxidant activity was evaluated for free radical scavenging activity by DPPH assay which showed the significant antioxidant activity of AENCL and MENCL further supported their anti - ulcerogenic property.

**Anti - fungal action:** The present study was designed to evaluate the antifungal activity of alcoholic and aqueous extract from leaves and bark of *Neolamarckia cadamba* (Roxb.) Bosser using the paper disc diffusion method. All the extracts showed antifungal activity against the *Aspogillium fumigatous* and *Candida albicans*. Leaves extract showed more activity than the bark extracts and it was comparable to the standard drug Ketoconazole.

### **Classical categorization:**

Charaka Samhita -

Vedanasthapana - group of herbs that are used for pain relief

Shukrashodana - group of herbs that cleanse and detox semen, male and female reproductive systems

Vamanopaga - group of herbs useful in Vamana Panchakarma treatment

Sushruta Samhita - Nyagrodadi, Rodradi

Bhavaprakasha - Pushpa varga

Dhanvantari Nighantu - Amradi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Prabadradi varga

### **Scientific classification**

Kingdom: Plantae

Order: Gentianales

Family: Rubiaceae

Subfamily: Cinchonoideae

Tribe: Naucleaeae

Genus: Neolamarckia

Species: N. cadamba

### **33. Nadihingu Gardenia gummifera: Benefits, Remedies, Research, Side Effects**

Nadi hingu - Gardenia gummifera is a herb mentioned in the ayurvedic pharmacopoeia for the treatment of fever, indigestion, wounds, skin diseases and pain in abdomen due to intestinal worm or constipation.

Latin name - Gardenia gummifera Linn.

Family - Rubiaceae

#### **Names in different languages:**

Hindi Name - Dikamali

English Name - Cambia gum or resin

Kannada Name - Bikke, Bukke, Dikkemalli

Tamil Name - Dikamalapi, Sinna kambil

Telugu Name - Telbampa





## **Sanskrit Synonyms of Nadihingu:**

Janthuka - Effective against intestinal worms

Pinda - It can be rolled to bolus form after collection

Ramatha, Palasha, Vamshapatra, Venupatri, Hingushivatika, Hingupatri, Pindahva,

It is to be noted that Nadi hingu and Hingu are different herbs told in Ayurveda. Some of the synonyms given for Nadi hingu and Hingu are similar due to its similar properties and availability.

Nadi hingu is a big shrub or small tree growing to a height of 2 to 3 m and is found in the plains of India. The flowers of the plant are white in color which later turns to pale yellow. Fruits are found in the month of June to August. Resin is obtained by making a cut on the stem or branches of the plant and the resin resembles the gum of asafetida in color and odor.

## **Gardenia gummifera Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Resin/Gum

**Dosage** - 250 - 500 mg of resin powder

**Gardenia gummifera Chemical constituents:**

The gum contains flavones like gardenin, nevadensin, wogonins, isocutellarein, apigenin and de - MeO - sudachitin.

**Uses of Nadi hingu:**

- The paste or the resin of Gardenia gummifera is applied over the wounds and area with pain. It is then tied with clean bandage cloth to reduce the complaints.
- The resin of the plant is kept over the tooth or gum affected with dental caries and inflammation of the gums.
- The resin in a dose of 200mg is dissolved in water or buttermilk and is given to patients suffering from indigestion and lack of appetite.
- The dried resin of the plant Gardenia gummifera is dissolved in water and given to patients suffering from intestinal worms, distention of abdomen, constipation and piles.
- Nadi hingu is given in a dose of 300 - 500 mg to treat fever arising due to indigestion.
- Dissolved resin of the plant is given along with warm water to treat dyspnea and cough.

- The gum is given in a dose of 500 mg to treat skin disease.

नाडीहिङ्गुः पलाशाख्या जन्तुका रामठी च सा ।

वंशपत्री च पिण्डाहा सुवीर्यां हिङ्गुनाडिका ॥

नाडीहिङ्गुः कटूष्णा च कफवातार्तिशान्तिकृत् ।

विष्ठाविबन्धदोषघ्नमानाहामयहारि च ॥ राजनिघण्टु - पिप्पल्यादिवर्ग

नाडीहिङ्गु पलाशा तु जन्तुका रामठी च सा ।

वंशपत्री वेणुपत्री पिण्डाहिङ्गुशिवाटिका ॥

नाडीहिङ्गु कटूष्णं च कफवातार्तिशान्तिकृत् ।

विष्टम्भनविबन्धामदोषघ्नं दीपनं परम् ॥ धन्वन्तरिनिघण्टु -

शतपुष्पादिवर्ग

nāḍīhiṅguḥ palāśākhyā jantukā rāmaṭhī ca sā ।

vaṃśapatrī ca piṇḍāhvā suvīryāṃ hiṅgunāḍikā ॥

nāḍīhiṅguḥ kaṭūṣṇā ca kaphavātārtiśāntikṛt ।

viṣṭhāvibandhadosāghnamānāhāmayahāri ca ॥ rājanighaṇṭu -

pippalyādivarga

nāḍīhiṅgu palāśā tu jantukā rāmaṭhī ca sā ।

vaṃśapatrī veṇupatrī piṇḍāhiṅguśivāṭikā ॥

nāḍīhiṅgu kaṭūṣṇaṃ ca kaphavātārtiśāntikṛt ।

viṣṭambhanavibandhāmadoṣaghnaṃ dīpanaṃ param ||  
dhanvantarinighaṇṭu - śatapuṣpādivarga

Balances Kapha and Vata Dosha

Deepana - improves digestion strength

Indicated in

Vibandha - constipation

Anaha - bloating, fullness

**Adverse reaction:** The resin should not be given in empty stomach as it may cause hyperacidity and nausea.

### **Formulations containing Nadi hingu:**

Though there are many formulations containing Hingu, there are minimum formulations containing Nadi hingu.

**Balant kada No.2:** It is a proprietary medicine in decoction form used by women just after delivery for improving the appetite and digestion. It also helps in relieving tiredness and gives strength to the woman.

### **Research articles about Gardenia gummifera:**

**Anti - oxidant property:** The antioxidant activity was determined by 2,2 - diphenyl - 1 - picrylhydrazyl (DPPH) assay, superoxide radical scavenging assay, reducing power assay, cerium (IV) amaranth dye assay, Ferric Reducing Antioxidant Property (FRAP) assay and total antioxidant capacity. In all the assays, the ethanolic extract of Gardenia gummifera Linn. is

more effective in free radical scavenging activity than that of other two extracts.

**Hepato protective action:** The studies substantiate the use of *Gardenia gummifera* in folklore medicine for the treatment of liver disorders. The GGME at a dose of 300 mg/kg b.w. exhibited a significant hepato protective effect and BTF, BAF were found to have potential protective effects at a dose of 50 and 100 mg/kg. The hepato protective effect BAF was well comparable to that of Silymarin (50 mg/kg). The two selected bioactive fractions were found to possess an antioxidant property, which strongly supports their hepato protective effect. The hepato protective effects of the extracts were supported by their effect in shortening the sleeping time and decrease the liver weight in rats.

**Anti - bacterial activity:** Present study was aimed at evaluating antibacterial activity of ethanolic and chloroform extracts of *G.gummifera* using agar well diffusion method. The activity spectrum was tested against different types of Gram positive (*B. subtilis* and *S. aureus*) and Gram negative (*E. coli* and *P. aeruginosa*) bacterial strains. The activity of both the extracts was compared using Amoxycillin as standard. Chloroform extract showed significant activity against all pathogens when compared with ethanolic extract of *G. gummifera*.

**Classical categorization:**

Dhanvantari Nighantu - Shatapushpadi varga

Raja Nighantu - Pippalyadi varga

### **34. Haridru: Adina cordifolia: Benefits, Remedies, Research, Side Effects**

Haridru - Adina cordifolia or Haldina cordifolia is an Ayurvedic medicinal plant, used for the treatment of skin diseases, wounds, vomiting, intestinal worms, indigestion and the diseases of the liver.

Latin name - Adina cordifolia Benth and Hook,

Family - Rubiaceae

#### **Names in different languages:**

Hindi Name - Hald, Haldu

Bengali Name - Kelikadamba, Dakam

Gujarathi Name - Haladravo

Kannada Name - Arashintega

Marathi Name - Haladrava

Malayalam Name - Manja kadamba

Telugu Name - Pusupu kadamba

Urdu Name - Haland

#### **Synonyms:**

Peetadaru - The stem is yellowish colored

Haridraka - The heart wood is yellow colored

Kadambaka

Haridru is a large tree growing to a height of up to 10 - 15 m.

The heartwood of the tree is hard and yellowish colored. It grows in the Himalayan belt and in the plains of India.

## **Haldina cordifolia medicinal Properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha), Varnya (Improves the complexion), Balya (Improves the strength)

हरिद्रुः पीतदारुः स्यात् पीतकाष्ठश्च पीतकः ।

कदम्बकः सुपुष्पश्च सुराहः पीतकद्रुमः ॥

हरिद्रुः शीतलस्तिको मङ्गल्यः पित्तवान्तिजित् ।

अङ्गकान्तिकरो बल्यो नानात्वग्दोषनाशनः ॥ राजनिघण्टु - प्रभद्रादिवर्ग

haridruḥ pītadāruḥ syāt pītakāṣṭhaśca pītakaḥ ।

kadambakaḥ supuṣpaśca surāhvaḥ pītakadrumaḥ ॥

haridruḥ śītalastikto maṅgalyaḥ pittavāntijit ।

aṅgakāntikaro balyo nānātvagdoṣanāśanaḥ ॥ rājanighaṇṭu -  
prabhadrādivarga



**Part used** - Bark of stem and Heartwood

**Dosage:** Decoction - 50 - 60 ml

**Chemical constituents:**

The heartwood of the tree contains indole alkaloid. The bark contains about 7.5% to 9.5% tannin and the leaves contain ursolic acid and quercetin.

**Uses of Adina cordifolia:**

The paste prepared from the leaves and bark is applied over the wounds for the treatment.

The decoction prepared from the bark of Adina cordifolia is given in a dose of 40 - 50 ml to treat skin diseases and fever.

The paste prepared from the leaves is applied over the area affected with discoloration of the skin and skin diseases.

The decoction in a daily divided dose of 40 - 50 ml is given for about a week to improve the liver function and improve metabolism.

The decoction of the heartwood is given in a dose of 30 - 40 ml to restore the physical strength of person who has suffered with fever.

The decoction of the bark of Adina cordifolia is given in a dose of 25 - 30 ml in divided dose to improve appetite and digestion.

**Side Effects:** No adverse reaction is reported after using Haridru as medicine.

## Research articles about Haridru:

**Anti - diabetic activity:** The objective of the study was to investigate the anti - diabetic activity of hydro - alcoholic extract of *Adina cordifolia* (Roxb.) leaves (HAEACL) in alloxan induced diabetic rats at 250 and 500 mg/kg doses. Treatment with HAEACL at 500 mg/kg dose decreased the blood glucose level significantly. However, the lower doses (250 mg/kg) of HAEACL produced a little decrease in blood glucose level. It showed that there was a dose dependent decrease in blood glucose level in the alloxan induced diabetic rats as compared to the control group.

**Hepato protective action:** The acetone (*AEAC*) and aqueous extracts (*AQEAC*) of *Adina cordifolia*, belonging to the family Rubiaceae, were studied for hepato protective activity against Wister rats with liver damage induced by ethanol. It was found that *AEAC* and *AQEAC*, at a dose of 500 mg/kg body weight exhibited hepato protective effect by lowering the Serum Glutamate Pyruvate Transaminase (SGPT), Serum Glutamate Oxaloacetate Transaminase (SGOT), alkaline phosphate and total bilirubin to a significant extent and also significantly increased the levels of total protein. The hepato protective activity was also supported by histo pathological studies of liver tissue.

**Anti - ulcer action:** The researchers were determining the anti - ulcer effect of *Haldina cordifolia* in NSAID induced rats. The methanolic extract was given orally 100mg/kg and 50 mg/kg body weight at 8 hrs interval. Diclofenac sodium was used as the inducing agent for the ulcer. The result was satisfactory as there is a marked improvement in the ulcerated part. The extract was able to decrease the acid secretion in stomach and increase the mucosal damage.

**Anti - oxidant property:** In this study, in vitro antioxidant activity, total phenolic content and concentration of flavonoids of four different extracts of *Adina cordifolia* (Roxb.) were determined using spectrophotometric methods. The significant linear correlation was confirmed between the values for the total phenolic content and antioxidant activity of plant extracts. *Adina cordifolia* (Roxb.) can be regarded as promising candidates for natural plant sources of antioxidants with high value.

### **Classical categorization:**

Raja Nighantu - Prabadradi varga

### **Scientific classification**

Kingdom: Plantae

(unranked): Angiosperms

(unranked): Eudicots

(unranked): Asterids

Order: Gentianales

Family: Rubiaceae

Genus: *Haldina* Ridsdale

Species: *H. cordifolia*

### **35. Tagara Valeriana wallichii: Benefits, Remedies, Research, Side Effects**

Tagara - Valeriana wallichii is a plant described in Ayurveda for the treatment of wounds, arthritis, cough, asthma, general debility, skin diseases, fever and cases of animal bite.

Latin Name - Valeriana wallichii DC

Family - Valerianaceae

#### **Names in different languages:**

Hindi name - Tagar

English name - Indian Valerian

Gujarathi Name - Tagaragantoda

Kannada name - Mushka bala

Marathi Name - Tagara moola

Punjabi Name - Sugandhabala



## **Synonyms -**

Natam - The plant is short

Kutula, Vakra - The rhizome is twisted

Kalanusari, Barhishta, Barhana, Vakra, Shata, Nahusha, Nrupa,

The genus Valeriana, with about 200 species, belongs to the family Valerianaceae and has a distribution throughout the

world. *Valeriana wallichii*, the major species of the genus

Valeriana is native to India, Nepal and China. In India the plant is found in the Himalayan belt at an altitude of 8000 to 10000 ft.

The herb 'Kushta' (*Saussurea lappa*) has been told as the substitute plant for Tagara in case of its unavailability.



## **Tagara medicinal Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Snigdha (Slimy in

nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Tridosahara - Balances all the three Doshas, especially, Kaphavata shamaka (reduces vitiated kapha and vata dosha), Vishagna (controls the poison in the body)

**Part used** - Root

**Dosage** - Powder of root - 1 - 3 g

### **Chemical constituents of Valeriana wallichii:**

The rhizomes and roots of the plant contain cyclopentapyrans, acacetin - 7 - O - rutinosides, valtrate, valepotriates and an iridoid ester glycoside, valerosidatum. The essential oil from the root contains calarene, beta - bargamotene, valeranone, ar - curcumene, maalioxide and maalitol. The main acid present in the plant are isovaleric acid and beta methyl valeric acid.

### **Medicinal Uses of Tagar:**

- The paste of the root of Valeriana wallichii is applied over the wounds for treatment.
- The cold infusion of the root of the plant is given in a dose of 50 - 60 ml to treat cases of pain due to wound and infection.
- The paste of the root of Tagara is applied over the joints in cases of arthritis to relieve the pain.

- The decoction of the bark and root of the plant of Valeriana wallichii is given in a dose of 40 - 50 ml to treat cases indigestion, pain in abdomen and hepatomegaly.
- The cold infusion of the root is given as a general tonic regularly for 1 - 2 weeks in a dose of 30 - 40 ml in cases of general debility.
- The decoction of the root of the plant is given in a dose of 25 - 30 ml to treat paralysis, convulsions, hysteria and arthritis.
- The paste of the root of tagara is applied over the area affected with insect bite and scorpion sting.
- The decoction of the root is given in a dose of 25 - 30 ml to treat cases of asthma and cough associated with phlegm.
- The paste of the root of tagara is applied externally over the area affected with skin diseases like discoloration and ring worm.
- The cold infusion or decoction of the bark and root is given to treat fever.

तगरं कुटिलं जिह्वं नतं कालानुसार्यकम् ॥

बर्हिष्ठं बर्हणं वक्रं शठं च नहुषं नृपम् ।

अपरं दण्डमातङ्गं कुञ्चितञ्च महोरगम् ॥



कटुकं पिण्डतगरं हीनं कालानुसारिवाम् ।

तगरं मधुरं तिक्तं कटु पाके रसे लघु ॥

स्निग्धोष्णं तुवरं भूतमदापस्मारनाशनम् ।

विषचक्षुःशिरोरोगरक्तदोषत्रयापहम् ॥ कैयदेवनिघण्टु - ओषधिवर्ग

तगरं कुटिलं वक्रं दीनं जिह्वं नतं शठम् ।

कालानुसार्यमनृजु कुञ्चितं नहुषं नृपम् ॥

तगरं स्यात् कषायोष्णं स्निग्धं दोषत्रयप्रणुत् ।

दृक्शीर्षविषदोषघ्नं भूतापस्मारनाशनम् ॥ धन्वन्तरिनिघण्टु -

चन्दनादिवर्ग

तगरस्याप्यभावे तु कुष्ठं दद्याद्भिषग्वरः । भावप्रकाश - प्रतिनिधिद्रव्य

कालानुसार्यं तगरं कुटिलं नवुषं नतम् ।

अपरं पिण्डतगरं दण्डहस्ती च बर्हिणम् ॥

तगरद्वयमुष्णं स्यात्स्वादु स्निग्धं लघु स्मृतम् ।

विषापस्मारशूलाक्षिरोगदोषत्रयापहम् ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकर कर्पूरादिवर्ग

tagaram kuṭilam jihmam nataṃ kālānusāryakam ॥

barhiṣṭham barhaṇam vakram śaṭham ca nahuṣam nr̥pam ।

aparam daṇḍamātaṅgam kuñcitañca mahoragam ॥

kaṭukam piṇḍatagaram hīnam kālānusārivām |  
tagaram madhuraṃ tiktaṃ kaṭu pāke rase laghu ||  
snigdhoṣṇam tuvaram bhūtamadāpasmāranāśanam |  
viṣacakṣuḥsīrorogarakṭadoṣatrayāpaham || kaiyadevanighaṇṭu  
- oṣadhivarga

tagaram kuṭilam vakram dīnam jihmam nataṃ śaṭham |  
kālānusāryamanṛju kuñcitaṃ nahuṣam nṛpam ||  
tagaram syāt kaṣāyoṣṇam snigdham doṣatrayapraṇut |  
dr̥kśīrṣaviṣadoṣagṇam bhūtāpasmāranāśanam ||  
dhanvantarinighaṇṭu - candanādivarga

tagarasyāpyabhāve tu kuṣṭham dadyādbhiṣagvaraḥ |  
bhāvaprakāśa - pratinidhidravya

kālānusāryam tagaram kuṭilam navuṣam natam |  
aparam piṇḍatagaram daṇḍahastī ca barhiṇam ||  
tagaradvayamuṣṇam syātsvādu snigdham laghu smṛtam |  
viṣāpasmāraśūlākṣirogadoṣatrayāpaham || bhāvaprakāśa -  
pūrvakhaṇḍa - miśraprakara karpūrādivarga

### **Indications:**

Bhuta - psychiatric disorders, anti microbial

Mada - intoxication

Apasmara - Epilepsy

Visha - Toxic conditions, poisoning

Chakshuroga - eye disorders

Shiroroga - headache

Raktadosha - blood impurity and vitiation disorders such as acne, skin diseases, bleeding disorders etc

Shoola - abdominal colic pain

### **Tagara for sleep:**

It is useful in inducing sleep as well. Dose is 1 capsule at night after food for 4 - 6 weeks. It is safe in lower doses, taken for shorter periods below 2 - 3 months time.

### **Side effects of Valeriana wallichii:**

Patients should not take Tagara for a long duration as it may lower the blood pressure.

Hence medical supervision is advised.

People taking medicine for hypertension should seek medical advice before taking this herb.

### **Ayurvedic medicines containing Tagara:**

**Pippalyasava:** It is an Ayurvedic medicine in liquid form and has self-generated alcohol as base. It is used to treat cases of anemia, piles, digestive complaints, respiratory disorders, sprue and liver complaints.

**Devadarvarishta:** Devadarvarishta is an Ayurvedic medicine, traditionally used to treat skin diseases especially occurring due to complication of diabetes. It is also useful to treat diseases caused due to Vata imbalance, difficulty in passing urine and digestive diseases.

**Nalikerasavam:** It is an Ayurvedic medicine in liquid form and has self-generated alcohol in small quantity. It is used to treat sexual disorders such as premature ejaculation, erectile dysfunction. This medicine is also used for longevity and rejuvenation treatment.

It improves skin quality, complexion and beauty.

**Vyaghryadi lehya:** It is an ayurvedic medicine in confectionary form useful to treat patients suffering from bloating, gaseous distention of abdomen, gulma, heart ailments, piles, cough, cold, bronchitis, asthma and such other respiratory diseases.

**Vilvadi gulika:** It is a tablet useful for the treatment of bites from cobra, scorpion, rodents, insects, spiders, gastro enteritis, dyspepsia, fever, toxic and psychological conditions.

**Badradarvadi kashaya:** It is a proprietary ayurvedic medicine in decoction form to treat asthma, cough and rheumatoid arthritis.

**Prasootika kashaya:** It is a proprietary ayurvedic medicine in decoction form to restore strength in post partum women and to increase the quantity of breast milk.

**Himasagara taila:** It is an oil said in ayurveda for the treatment of locomotor problems, chest injury, emaciation, muscle wasting, locked jaw, frozen neck, frozen shoulder, speech difficulties, insomnia etc.

**Chaitanya herbal jam:** Chaitanya Herbal Jam is a proprietary Ayurvedic medicine useful for building the immunity, alertness and vigor.

**Puga khanda:** Pugakhanda is an Ayurvedic medicine, in granules form. Its main ingredient is betel nut. It is used in the treatment of gastritis, vomiting, abdominal pain, dyspepsia, gastritis, bleeding diseases, anemia and constipation. It also improves strength, digestion power.

**Brahamdine tablet:** It is a proprietary Ayurvedic medicine used for the treatment of dysmenorrhea, menorrhagia, leucorrhoea. It also normalizes irregular periods.

**Arjin tablet:** It is a proprietary Ayurvedic medicine used for the treatment of hypertension.

### **Research articles about Valeriana wallichii:**

**Anti - microbial action:** The rhizome and root extracts of Valeriana wallichii DC in various solvents were investigated for its antimicrobial effect. The crude extracts were tested against gram positive Staypholococcus aureus, Staypholococcus epidermidis and gram negative Escherichia coli, Klebsiella pneumoniae, Pseudomonas aeruginosa, Proteus mirabilis bacteria and fungi Aspergillus niger, Candida albicans, M. furfur to find out their antimicrobial activity using agar diffusion method. Ethanol and Methanol solvent extracts showed significant antimicrobial activity ranging from 13 - 18mm

diameter of zone of inhibition especially against fungal pathogens as compared to bacterial pathogens. In continuation with these evaluations, the most promising extract in polar solvent was investigated by GC/MS. Components identified in the solvent extract constituting Cyclopentaneacetaldehyde; Quinoline; Aristolene; Cyclohexane, 2,4 - diisopropenyl - 1 - methyl - 1 - vinyl, Cyclopentane, 1 - (3 - methylbutyl); Tricyclo[5.1.0.0(2,4)oct - 5 - ene - 5 - propanoic acid; Ascorbic acid 2,6 - dihexadecanoate; 9,12 - Octadecadienoic acid; Pentadeconic Acid, 4 hexadecyl ester; Valeric acid as the major constituents.

**Toxicity study:** Valerianawallchii rhizome hydroethanolic extract didn't exhibit mortality, morbidity or any other neurologic, hematologic or biochemical adverse effects apart from sedation which is extension of their known pharmacological activity, after single oral dose of 2000mg/ kg bw (14 days of observation) or after once daily 200mg/kg, 600mg/kg 1800mg/kg oral treatment for 90days in healthy adult Swiss albino mice.

**Anti - oxidant property:** The Methanolic extracts of Valeriana wallichii was used in present study and also screened for the presence of phyto - chemicals viz. alkaloids, flavonoids, tannins, saponins, glycosides etc and their effect on 2,2 -

Diphenyl - 1 - picryl - hydroxyl radical (DPPH) which was used to determine the free radical scavenging activity.

**Hepato protective action:** The phytochemical study of VWE showed the presence flavonoids, terpenoids, tannins, alkaloids and cardiac glycosides. A dose dependent increase in the oxidative potential was observed in the extracts with total phenolic content 66.4GAE/g extract. VWE 500mg/kg and 300mg/kg showed a significant ( $p < 0.001$ ) increased in levels of AST, ALT and ALP as compared to negative control (percentage hepatoprotection=73% and 68% respectively). The GSH ( $p < 0.001$ ) and CAT in VWE 500mg/kg were significantly increased while MDA levels were decreased ( $P < 0.001$ ) as compared negative control. The findings were confirmed histo pathological examination.

**Classical categorization:**

Charaka Samhita -

Sheeta Prashanama - cold relieving group of herbs

Tikta Skandha - bitter tasting group of herbs

Sushruta Samhita - Eladi gana

Vagbhata - Eladi gana

Bhavaprakasha - Karpooradi varga

Dhanvantari Nighantu - Chandanadi varga

Kaiyyadeva Nighantu - Oushadhi varga

## **Scientific classification**

Kingdom: Plantae

Order: Dipsacales

Family: Valerianaceae

Genus: Valeriana

Species: *Valeriana wallichii*



### **36. Artemisia vulgaris Mugwort Benefits, Remedies, Research, Side Effects**

Artemisia vulgaris - mugwort is a potential anti cancer herb of Ayurveda, used for the treatment of skin diseases, constipation, diseases of the liver, diseases of the neuro muscular condition (vataja roga) and respiratory diseases. It is called Damanaka in Sanskrit.

Latin Name - Artemisia vulgaris

Family - Asteraceae

#### **Names in different languages:**

Hindi name - Douna

English name - Indian Wormwood, Mugwort

Bengali Name - Dona

Gujarati name - Damoro

Marathi name - Davana

Tamil name - Maasipattiri

Telugu name - Davanamu

Chinese and Singapore Name - Ai Cao, Ai Ye.



*Artemisia vulgaris* is a tall herbaceous perennial plant growing 1 - 2 m (rarely 2.5 m) tall, with a woody root. The leaves are 5 - 20 cm long, dark green, pinnate and sessile, with dense white tomentose hairs on the underside. The erect stems are grooved and often have a red - purplish tinge. The tree is found in the mountain region all over India up to an altitude of 12,000 feet.



## **Mugwort medicinal Properties:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Veerya (Potency) - Ushna (Hot)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Tridosha shamaka, Tridoshahara (reduces all the dosha in the body)



**Part used** - Panchanga (whole plant)

### **Dosage:**

Fresh juice - 5 - 10 ml

Powder - 0.5 - 1 g

## **Chemical constituents of Artemisia vulgaris:**

The plant yields about 0.35% of essential oil which contain cineol, thujone, thujyl and citral. The plants growing in higher altitude contains terpenes.



## **Uses of Damanaka:**

- The paste of the leaves of *Artemisia vulgaris* is applied over the area affected with swelling and wounds for its treatment.
- The decoction of the bark and leaf of the plant is given in a dose of 40 - 50 ml to treat intestinal worms, hepatomegaly and constipation.

- The decoction of the plant is given to treat cases of jaundice as the medicine helps to remove excess bile along with the fecal matter.
- The kshara (alkali powder) prepared from the plant *Artemisia vulgaris* is given in a dose of 1 g with sugarcane juice or decoction of *Tribulus terrestris* (Gokshura) to relieve burning micturition and treat renal calculi.
- The paste of the leaves of *Damanaka* is applied over the area affected with skin diseases like eczema, ringworm and pigmentation.
- Cold infusion prepared from the bark and leaf of *Artemisia vulgaris* is given in a dose of 25 - 30 ml to treat cough and asthma.
- The powder of the bark of the plant in a dose of 1 gram is given with amalaki (Indian gooseberry) powder and Loha bhasma to treat anemia.
- The decoction of the bark is given in a dose of 25 - 30 ml to treat fever due to indigestion and in cases of dysmenorrhea.

ऋषिपुत्रो ब्रह्मजटी दमो गन्धोत्कटो मुनिः ।

(पाण्डुराङ्गो दमनको विनीतः कुलपुत्रकः) ॥

पुण्डरको मुनिसुतो दान्तः साधुस्तपोधनः ।

दमनस्तुवरस्तिको हृद्यो वृष्यस्त्रिदोषनुत् ॥

निहन्ति कफजां कण्डूं कुष्ठक्लेदविषग्रहान् । कैयदेवनिघण्टु - ओषधिवर्ग

दमनः पाण्डुरागः स्याद्दान्तो गन्धोत्कटो मुनिः ।

पुण्डरीको ब्रह्मजटतपस्वी ऋषिपुत्रकः ॥

दमनः स्याद्रसे तिको विषघ्नो भूतदोषनुत् ।

त्रिदोषशमनो हृद्यः कण्डूकुष्ठापहः स्मृतः ॥ धन्वन्तरिनिघण्टु -

चन्दनादिवर्ग

उक्तो दमनको दान्तो मुनिपुत्रस्तपोधनः ।

गन्धोत्कटो ब्रह्मजटो विनीतः कलपत्रकः ॥

दमनस्तुवरस्तिको हृद्यो वृष्यः सुगन्धिकः ।

ग्रहणाद् विषकुष्ठास्रक्लेदकण्डूत्रिदोषजित् ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - पुष्पवर्ग

अथ दमनकस्तु दमनो दान्तो गन्धोत्कटो मुनिर्जटिलः ।

दण्डी च पाण्डुरागो ब्रह्मजटा पुण्डरीकश्च ॥

तापसपत्रः पत्री पवित्रको देवशेखरश्चैव ।

कुलपत्रश्च विनीतस्तपस्विपत्रश्च सप्तधात्रीकः ॥

दमनः शीतलतिक्तः कषायकटुकश्च कुष्ठदोषहरः ।

द्वन्द्वत्रिदोषशमनो विषविस्फोटविकारहरणः स्यात् ॥ राजनिघण्टु -

करवीरादिवर्ग

अन्यश्च वन्यदमनो वनादिनामा च दमनपर्यायः ।

वीर्यस्तम्भनकारी बलदायी चाऽऽमदोषहारी च ॥ राजनिघण्टु -

करवीरादिवर्ग

ṛṣiputro brahmajaṭī damo gandhotkaṭo munih |

(pāṇḍurāṅgo damanako vinītaḥ kulaputrakaḥ) ||

puṇḍarako munisuto dāntaḥ sādhistapodhanaḥ |

damanastuvarastikto hr̥dyo vṛṣyastriḍoṣanut ||

nihanti kaphajāṃ kaṇḍūṃ kuṣṭhakledaviṣagrahān |

kaiyadevanighaṇṭu - oṣadhivarga

damanaḥ pāṇḍurāgaḥ syāddānto gandhotkaṭo munih |

puṇḍarīko brahmajaṭatapasvī ṛṣiputrakaḥ ||

damanaḥ syādrase tikto viṣaghno bhūtadoṣanut |

tridoṣaśamano hr̥dyaḥ kaṇḍūkuṣṭhāpahaḥ smṛtaḥ ||

dhanvantarinighaṇṭu - candanādivarga

ukto damanako dānto muniputrastapodhanaḥ |

gandhotkaṭo brahmajaṭo vinītaḥ kalapatrakaḥ ||

damanastuvarastikto hr̥dyo vṛṣyaḥ sugandhikaḥ |

grahaṇād viṣakuṣṭhāsrakledakaṇḍūtridoṣajit || bhāvaprakāśa -  
pūrvakhaṇḍa - miśraprakaraṇa - puṣpavarga  
atha damanakastu damano dānto gandhotkaṭo munirjaṭilaḥ |  
daṇḍī ca pāṇḍurāgo brahmajaṭā puṇḍarīkaśca ||  
tāpasapatraḥ patrī pavitrako devaśekharaścaiva |  
kulapatraśca vinītastapasvipatraśca saptadhātrīkaḥ ||  
damaṇaḥ śītalatikṭaḥ kaṣāyakaṭukaśca kuṣṭhadoṣaharaḥ |  
dvandvatridoṣaśamano viṣavisphoṭavikāraharaṇaḥ syāt ||  
rājanighaṇṭu - karavīrādivarga  
anyaśca vanyadamano vanādināmā ca damanaparyāyaḥ |  
vīryastambhanakārī baladāyī cā"madoṣahārī ca || rājanighaṇṭu  
- karavīrādivarga

### **Ayurvedic uses of Damanaka:**

Hrudya - acts as cardiac tonic, congenial for heart

### **Indications:**

Kandu - itching, pruritis

Kushta - skin diseases

Kleda - relieves clammy skin

Visha - Toxic conditions, poisoning

Graharoga - Psychiatric disorders

Visphota - boils, blisters

### **Contraindication and side effects:**

No adverse effect is reported due to the medicinal use of the



herb Damanaka.

Some people might be allergic to this herb.

**WebMD** states that it is not safe during pregnancy as it can cause uterine contractions.

### **Ayurvedic medicines containing Damanaka as ingredient**

**Sri gopala taila:** This is a medicated ayurvedic oil use externally for the treatment of vata disorders (neuro - muscular diseases), diabetes. It helps to improve memory, retention power and intelligence, when applied over scalp and forehead. It helps to strengthen nerves, muscles and blood vessels. The oil is used in pregnant woman to gently apply over abdomen (without any massage), to strengthen abdominal muscles and to protect pregnancy. It relieves menstrual cycle related pains in ladies upon external application over abdomen. It is also useful in psychotic conditions.

### **Research articles about Artemisia vulgaris:**

**Anti - cancer activity:** The present study pertains to the use of Artemisia vulgaris as a source of anticancer agent. The methanolic extract of the leaves were tested in vitro against HepG2 (hepatocellular carcinoma) cells for their apoptotic properties in synergism with a standard chemotherapeutic drug, etoposide. The IC50 value was found to be around 0.1mg as determined by MTT assay. LDH cytotoxicity assay showed A.

vulgaris leaf extract to be toxic against the cancer cells, which was further proved by the staining methods.

**Anti - oxidant property:** The work was framed to study the antioxidant effects of *Artemisia vulgaris* leaf extracts on oxidative stressed precision - cut liver slices. The enzymic (superoxide dismutase, catalase, peroxidase, glutathione reductase and glutathione - s - transferase) and non - enzymic (ascorbic acid, tocopherol, vitamin A and reduced glutathione) anti - oxidants were analyzed in the liver slice homogenate after incubation. Both enzymic and non - enzymic antioxidants were found to be decreased in oxidant - treated liver slices compared to untreated control, whereas the antioxidant activity / level was increased in leaf extract treated slices. This result indicates that the leaf extracts have the ability to improve the antioxidant status in oxidatively stressed liver slices.

**Analgesic and Anti - inflammatory action:** A methanolic extract of aerial parts of *Artemisia vulgaris* was studied for anti - inflammatory action by carrageenan - induced rat paw edema. The methanolic extract of *Artemisia vulgaris* in doses of 200, 400 and 800 mg/ml showed 71.3, 72.2 and 74.00 % inhibition of paw edema respectively at the end of three hour. In the hot plate (hot plate maintained at 55°C) and tail flick model, the methanolic extract of *Ar. vulgaris* in the above doses increased the pain threshold significantly also

administration of *A. vulgaris* showed dose dependent action in all experimental animal models.

To investigate the Nephro protective effect of ethanolic extract of leaf *Artemisia vulgaris* (EEAV) against diabetes induced nephropathy in rats. The results of study reveal that EEAV reduces the renal impairment in diabetic nephropathy rats through anti - diabetic, antioxidant and protective morphological changes.

### **Classical categorization:**

Bhavaprakasha - Pushpa varga

Dhanvantari Nighantu - Chandanadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Karaveeradi varga

### **Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Genus: *Artemisia*

Species: *A. vulgaris*

### **Sanskrit synonyms of Damanaka -**

Gandhotkata, Tapodhana, Pushpachamara, Brahmajata, Rishiputra, Muni, Kulaputraka, Pundaraka, Panduraga,

Munisuta, Daanta, Tapasvi, Vineeta, Kalapatraka, Tapasapatra,  
Pavitraka, Devashekhara, Saptadhatri.

### **37. Sea Wormwood: Artemisia maritima: Uses, Ingredients, Dose, Side Effects**

Chauhara - Artemisia maritima is a herb mentioned in the Ayurvedic pharmacopoeia for the treatment of pain, swelling, pin worms, alopecia, indigestion, fever and difficulty in micturition.

Latin Name - Artemisia maritima Linn.

Family - Asteraceae

#### **Chouhara - Names in different languages:**

Hindi name - Kirmani, Ajawain (not the same as ajwayin - Trachyspermum ammi)

English name - Worm seed, Sea wormwood, Old Woman

Gujarathi Name - Chuhari, Karmani ajama

Marathi Name - Kirmani ova

Persian Name - Dirmana

#### **Sanskrit Synonyms of Chauhara:**

Jantu Nashana - Kills the worms

Chauhara is a small herb growing to a height of 3 - 4 feet in the western Himalayan range. Flowers are seen in clusters, in the month of May and June.

#### **Artemisia maritima medicinal properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Hot)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Prabhava (Special action) - Krimighna (Kills the intestinal worms)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Panchanga (whole plant)

**Dosage** -

Powder of dried plant - 3 to 6 g

Starch extract - 100 mg to 125 mg

**Artemisia maritima chemical constituents:**

The immature flowers and leaves contain santonin whereas the other parts of the plant is devoid of santonin. It is to be noted that santonin can be toxic at 60 mg for children and at 200 mg for adults.

**Uses of Sea wormwood:**

- The paste of the leaves and bark of Chauhara is prepared and applied over the area affected with swelling and pain.
- The oil prepared from the leaves and bark of Artemisia maritima is applied externally over the fresh wounds to heal it.

- The dried plant of Chauhara is burnt and the ash is collected. This ash is mixed with coconut oil or sesame oil and made into paste and applied over the scalp region in cases of alopecia as treatment.
- The fresh juice (10 - 15ml) or decoction (25 - 30 ml) from the bark of the plant is given during bet time to treat cases of pin worm and intestinal worm. The procedure is repeated after 1 week for better result.
- The decoction of the bark and leaves of Artemisia maritima is given in a dose of 20 - 25 ml to treat cases of asthma and fever.
- The cold infusion or decoction from the bark and roots of Chauhara plant is given to treat cases of burning micturition, dysmenorrhea and fever due to indigestion.

पारसीययवानी स्याच्चौहारो जन्तुनाशनः ।

चौहारः कटुकस्तिक्तः तीक्ष्णोष्णो दीपनो लघुः ॥

त्रिदोषशमनो वृष्यो जीर्णामृमिशूलनुत् । कैयदेवनिघण्टु - ओषधिवर्ग

यवानिका यवानी स्याच्चौहारो जन्तुनाशनः ।

चौहारस्तद्गुणाः प्रोक्तो विशेषात्कृमिनाशनः ॥ धन्वन्तरिनिघण्टु

pārasīyayavānī syāccauhāro jantunāśanaḥ ।

cauhāraḥ kaṭukastiktaḥ tīkṣṇoṣṇo dīpano laghuḥ ॥

tridoṣaśamano vṛṣyo jīrṇāmakṛmiśūlanut | kaiyadevanighaṇṭu -  
oṣadhivarga

yavānikā yavānī syāccauhāro jantunāśanaḥ |  
cauhārastadguṇāḥ prokto viśeṣātkṛmināśanaḥ ||  
dhanvantarinighaṇṭu

### **Ayurvedic usage:**

Vrushya - aphrodisiac, improves vigor

Deepana - improves digestion strength

Tridoshashamana, Tridoshahara - Balances all the three Doshas

Krumihara - useful in worm infestation, infected wounds

### **Side effects of Chauhara:**

Large dose of the herb Chauhara can be toxic to humans.

Hence care should be taken during the administration of this herb. Headache, nausea, diarrhea, loss of consciousness, irregular heart beat and mild tremors of the limbs can be observed in cases of over dosage of the herb.

### **Classical categorization:**

Kaiyyadeva Nighantu - Oushadhi varga

### **Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae



Genus: Artemisia

Species: *A. maritima*

### **38. Sahadevi: Vernonia cinerea Benefits, Remedies, Research, Side Effects**

Sahadevi - Vernonia cinerea is a herb mentioned in the ayurvedic pharmacopoeia for the treatment of fever, localized swelling, wounds, renal calculi, skin diseases and elephantiasis. It is called Purple feabane in English.

Latin Name - Vernonia cinereaLess.

Family - Compositae



#### **Sahdevi - Names in different languages:**

Hindi name - Sahadevi, Sahdebi, Sahadebi

English name - Purple fleabane, Little ironweed

Bengali name - Kukasim

Gujarathi name - Sadori

Kannada name - Sahadevi

Marathi name - Sadodi

Malayalam name - Puvanakodantel

Tamil name - Naichotte poonde

Telugu name - Gariti Kamma



Sahadevi is a small shrub growing found all over India in the temperate climate, growing to a height of 0.5 feet to 3 feet. The leaves are having hairy surface beneath and the flowers are purple or pink colored blooming in the rainy season.



**Vernonia cinerea medicinal properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in

nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)



**Part used** - Root

**Dosage:**

Fresh juice - 10 to 20 ml

Decoction of root - 50 to 75 ml

**Chemical constituents of Vernonia cinerea:**

The plant contains luteolin - 7 mono - beta - D - glucopyranoside along with triterpene compounds like beta - amyirin acetate, lupeol acetate. The sterols - beta - sitosterol, stigmasterol and alpha - spinasterol are available in the plant.



### **Medicinal uses of Vernonia cineria:**

- The paste of the leaves and stem is prepared and applied over the wounds and localized swelling as treatment.
- The decoction prepared from the root and stem of Vernonia cineria is administered in a dose of 40 - 50 ml to treat cases of renal calculi and burning micturition.
- The cold infusion prepared from the root and stem of Sahadevi is given in a dose of 50 - 60 ml to treat fever caused due to indigestion.
- The paste from the root of Vernonia cineria is applied externally over the area affected with Elephantiasis.
- In cases of insomnia, the paste prepared from the root of Sahadevi is applied over the scalp region as part of treatment.

- The decoction or cold infusion made from the root and leaves of Sahadevi is given in a dose of 50 ml to treat skin diseases and as blood purifier.
- The decoction of root in a dose of 30 - 40 ml is administered to treat intestinal worms.
- The cold infusion prepared from the leaves and root of Sahadevi is given in a dose of 50 - 60 ml to treat constipation.

सहदेवी द्विधाप्रोक्ता श्वेता नीला च पुष्पातः ।

द्वयं चैकान्तरं हन्ति भक्षणात् धारणादपि ॥

निद्राकरा धृता शीर्षे नीला सिध्मविनाशिनी ॥रा.नि

ज्वरं हन्ति शिरोबद्धा सहदेवीजटा यथा ॥ च.सू.२६

महाबला पीतपुष्पा सहदेवी च सा स्मृता ॥

ततोऽन्यातिबला ऋष्यप्रोक्ता कङ्कतिका च सा ।

गाङ्गेरुकी नागबला झषा ह्रस्वगवेधुका ॥

बलाचतुष्टयं शीतं मधुरं बलकान्तिकृत् ।

स्निग्धं ग्राहि समीरास्रपित्तास्रक्षतनाशनम् ॥

हरेन्महाबला कृच्छ्रं भवेद्वातानुलोमनी । भा.प्र.

महाबला तु हृद्रोगवातार्शःशोफनाशनी ।

शुक्रवृद्धिकरी बल्या विषमज्वरहारिणी ॥ रा.नि.

सहदेवा द्विधा प्रोक्ता श्वेता नीला च पुष्पतः ॥

द्वयं चैकान्तरं हन्ति भक्षणाद्वारणादपि ।

निद्राकरं घृतं शीर्षे नीला सिध्मविनाशनी ॥ सो. नि.

sahadevī dvidhāproktā śvetā nīlā ca puṣṇataḥ |  
dvayaṃ caikāntaraṃ hanti bhakṣaṇāt dhāraṇādapi ||  
nidrākarā dhṛtā śīrṣe nīlā sidhmavināśinī ||rā.ni  
jvaraṃ hanti śīrobaddhā sahadevījaṭā yathā|| ca.sū.26  
mahābalā pītapuṣpā sahadevī ca sā smṛtā ||  
tato'nyātibalā ṛṣyaproktā kaṅkatikā ca sā |  
gāṅgerukī nāgabalā jhaṣā hrasvagavedhukā ||  
balācatuṣṭayaṃ śītaṃ madhuraṃ balakāntikṛt |  
snigdhaṃ grāhi samīrāsrappittāsrakṣatanāśanam ||  
harenmahābalā kṛcchraṃ bhavedvātānulomanī |  
Bhavaprakasha.

mahābalā tu hṛdrogavātārśaḥśophanāśanī |  
śukravṛddhikarī balyā viṣamajvarahāriṇī || rā.ni.  
sahadevā dvidhā proktā śvetā nīlā ca puṣpataḥ ||  
dvayaṃ caikāntaraṃ hanti bhakṣaṇādvāraṇādapi |  
nidrākaraṃ ghr̥taṃ śīrṣe nīlā sidhmavināśanī ||so. ni.

## **Ayurvedic uses of Vernonia cinerea:**

Nidrakara - induces sleep

Grahi - absorbent, useful in diarrhea, IBS

Sameerajit - Vatahara - useful in treating disorders of Vata  
Dosha imbalance such as neuralgia, paralysis, constipation,  
bloating, etc

### **Indicated in -**

Asrapitta - Bleeding disorders such as nasal bleeding, heavy  
periods, etc

Shukrakara - Shukrala - improves sperm and semen quantity  
and quality

Kshata - injury, bleeding

Vishamajwara - Intermittent fever

Sidhma Kushta - skin disease

### **Usage of Sahadevi in fever:**

Charaka has mentioned that Root of this herb is tied to head to  
reduce fever. There should be some truth in this. The root is  
known to accumulate nickel, zinc, copper and manganese in it -

1

**Types:** As per Raja Nighantu, 2 varieties, based on flower  
colour

Shweta - white

Neela - Blue





**Adverse effects of Sahadevi:** No adverse effect is observed from the normal dose of Sahadevi herb.

**Formulations containing Sahadevi:**

**Pelo hair cream:** It is an ayurvedic proprietary medicine useful for controlling premature greying of hair, hair fall and loss.

**Epderm capsule:** It is an ayurvedic proprietary medicine in capsule form for the treatment of vitiligo, psoriasis and other skin diseases.

**Hairich oil:** It is an ayurvedic proprietary medicine in oil form used for external application for total hair growth and health, cures dandruff, poor memory, baldness, grey hair and insanity.



### **Research articles about Vernonia cineria:**

**Cyto protective effect:** The extract of Vernonia cineria is found to be effective against nicotine toxicity on human umbilical vein endothelial cells.

**Anti - oxidant effect:** In this study, the ethanolic extract of Vernonia cinerea plant leaves were investigated for the antioxidant and hepatoprotective effects in male Wistar strain albino rats. The effect of extract on the activities of superoxide dismutase (SOD), catalase (CAT), glutathione reductase (GR), glutathione S - transferase (GST) and reduced glutathione (GSH) content were estimated in the liver of rats intoxicated with CCl<sub>4</sub>. When compared to CCl<sub>4</sub> treated group of rats, the extract significantly ( $p < 0.05$ ) increased the levels of SOD, CAT, GR, GSH, and GST. The extract also showed antioxidant effects by significantly decreasing ( $p < 0.05$ ) on FeCl<sub>2</sub> - Ascorbate induced lipid peroxidation in rat liver homogenate.

**Anti - diarrheal activity:** The present study was conducted with the objective of investigating the anti - diarrheal activity of *Verninia cinerea*. The plant extracts were collected through cold extraction method. The time of onset of first wet feces increased significantly and dose dependently by the extract. The aim of the present study is to investigate the ameliorative potential of ethanolic extract of whole plant of *Vernonia cinerea* in the chronic constriction injury (CCI) of sciatic nerve induced neuropathic pain in rats. Ethanolic extract of *Vernonia cinerea* and pregabalin were administered for 14 consecutive days starting from the day of surgery. CCI of sciatic nerve has been shown to induce significant changes in behavioral, biochemical and histo - pathological assessments when compared to the sham control group. *Vernonia cinerea* attenuated in a dose dependent manner the above pathological changes induced by CCI of the sciatic nerve, which is similar to attenuation of the pregabalin pretreated group. The ameliorating effect of ethanolic extract of *Vernonia cinerea* against CCI of sciatic nerve induced neuropathic pain may be due to the presence of flavonoids and this effect is attributed to anti - oxidative, neuro - protective and calcium channel modulator actions of these compounds.

**Classical categorization:**

Bhavaprakasha - Guduchyadi varga

Raja Nighantu - Shatahvadi varga

Shodala Nighantu - Lakshmanadi varga

### **Sanskrit Synonyms of Sahadevi -**

Dandotpala, Uttamkanyaka, Mahabala, Katambhara,  
Kesharuha, Kesarika, Keshavardhani, Devasaha, Sarini,  
Mrugadani, Peetapushpi, Devarha, Mruga, Mrugasara.

Varshapushpa - flowering happens in rainy season

### **Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Tribe: Vernonieae

Genus: Vernonia

### **39. Gorakh mundi Sphaeranthus indicus: Uses, Research, Side Effect**

Mundi - Sphaeranthus indicus is used in Ayurvedic treatment of pain, localized swelling, indigestion, headache, cough, elephantiasis, goiter, skin diseases and to improve the sexual vigor.

Latin Name - Sphaeranthus indicus Linn.

Family - Asteraceae

#### **Mundi - Names in different languages:**

Hindi name - Gorakh mundi

Bengali name - Mudmudiya

Malayalam name - Mirangini

Marathi name - Gorakh mundi

Tamil name - Kottakaranthai

Telugu name - Voddataruppu

Urdu name - Buikdam

#### **Sanskrit Synonyms of Sphaeranthus indicus:**

Alambusta - The root is spherical shaped

Kadambapushpi - The shape of flower resembles that of 'Kadamba' flower

Bhumi Kadamba, Sravani, Tapodhana, Bhikshu,

Shravanasheershaka, Kuhalaka, Pravrajita,

Mundi is a plant which grows to a height of 2 - feet and is found in the paddy fields and in places of moist soil all over

India. The leaves are having hairy growth. The flower bunch resembles that of Kadamba flower (*Neolamarckia cadamba*) and blooms in the winter season.

**Sphaeranthus indicus: Medicinal properties:**

Rasa (Taste) - Tikta (Bitter), Katu (Pungent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Tridosha shamaka (reduces all the three doshas), Rasayana (acts like health tonic)

**Part used** - Whole plant

**Dosage -**

Fresh juice - 10 to 20 ml

Decoction - 50 - 100 ml

**Chemical constituents:**

The steam distillate of the plant contains methyl chavicol, alpha - ionone and d - cdinene. An alkaloid, sphaeranthine is also found in the plant. The flower head of the plant contain beta - D - glucoside of beta - sitosterol. The flower of Mundi contains sphaeranthanolide, Eudesmanolides, cryptmeridiol and 4 - epicryptomerdiol.

**Medicinal Uses of Sphaeranthus indicus:**

- The paste of the plants of Mundi is prepared and applied over the area affected with localized swelling.
- The fresh juice of the plant is given with black pepper powder in a dose of 10 - 15 ml to treat headache including cases of migraine.
- The decoction prepared from the plant *Sphaeranthus indicus* is given in a dose of 50 - 60 ml to treat cases of indigestion, piles, intestinal worms and enlargement of liver.
- The paste of the plant is applied over the area affected with elephantiasis.
- The cold infusion of Mundi is given in a dose of 40 - 50 ml to treat chronic cough and asthma.
- The juice of the plant is given as a nevine tonic and to treat cases of general debility and epilepsy.
- The paste of the whole plant is applied externally in skin diseases and herpes.
- The distillate from the plant known as '**Mundi arka**' is a potent medicine to treat cases of asthma. 4 - 5 drops of Mundi arka is mixed with hot water and administered.
- The cold infusion of the plant is given in a dose of 50 - 60 ml to treat cases of burning micturition and pyuria.

- The decoction prepared from the plant Sphaeranthus indicus is given in a dose of 40 - 50 ml to treat cases of diarrhea and vomiting.

मुण्डी तिक्ता कटुः पाके वीर्योष्णा मधुरा लघुः ।

मेध्या गण्डापचीकृच्छ्रकृमियोन्यर्तिपाण्डुनुत् ॥

श्लीपदारुच्यपस्मारप्लीहमेदोगुदार्तिहत् ।

महामुण्डी च तत्तुल्या गुणैरुक्ता महर्षिभिः ॥भा.प्र.

श्रावणी मधुरा तिक्ता कटुपाका कटुर्लघुः ॥

वीर्योष्णा तुवरा मेध्या स्थिरा वातकफापहा ।

जयेत् गण्डापचीप्लीहमेदोऽपस्मारपाण्डुताः ॥

श्लीपदारुचियोन्यर्तिकासकृच्छ्रगुदकृमीन् । कै.नि.

मुण्डिका कटुतिक्ता स्यादनिलास्रविनाशिनी ।

आमारुचिघ्न्यपस्मारगण्डश्लीपदनाशिनी ॥ ध.नि.

श्रावणी तु कषाया स्यात्कटूष्णा कफपित्तनुत् ।

आमातीसारकासघ्नी विषच्छर्दिविनाशिनी ॥

महामुण्ड्युष्णतिक्ता च ईषद्रौल्या मरुच्छिदा ।

स्वरकृद्रोचनी चैव मेहहृच्च रसायनी ॥ रा.नि.

मुण्ड्यौ वातकफश्वासहरे बल्ये रसायने ।



मेधात्यग्निकरे चोष्णे विपाके कटुके च ते ॥

कषाये मधुरे तत्र महामुण्डी गुणोत्तरा । सो.नि.

muṇḍī tiktā kaṭuḥ pāke vīryoṣṇā madhurā laghuḥ |  
medhyā gaṇḍāpacīkṛcchrakṛmiyonyartipāṇḍunut ||  
ślīpadārucyapasmāraplīhamedogudārtihṛt |  
mahāmuṇḍī ca tattulyā guṇairuktā maharṣibhiḥ  
||Bhavaprakasha.

śrāvaṇī madhurā tiktā kaṭupākā kaṭurlaghuḥ ||  
vīryoṣṇā tuvarā medhyā sthirā vātakaphāpahā |  
jayet gaṇḍāpacīplīhamedo'pasmārapāṇḍutāḥ ||  
ślīpadāruciyonyartikāsakṛcchragudakṛmīn | kai.ni.  
muṇḍikā kaṭutiktā syādanilāsraṇināśinī |  
āmārucighnyapasmāragāṇḍāślīpadanāśinī || dha.ni.  
śrāvaṇī tu kaṣāyā syātkaṭūṣṇā kaphapittanut |  
āmātīsārakāsaghnī viṣacchardivināśinī ||  
mahāmuṇḍyūṣṇatiktā ca īṣadgaulyā marucchidā |  
svarakṛdrocanī caiva mehahṛcca rasāyanī || rā.ni.  
muṇḍyau vātakaphāśvāsahare balye rasāyane |  
medhātyagnikare coṣṇe vipāke kaṭuke ca te ||  
kaṣāye madhure tatra mahāmuṇḍī guṇottarā | so.ni.

## **Benefits of Gorakh Mundi as explained in Ayurvedic text books:**

Medhya - improves intelligence

Indicated in -

Ganda - cervical lymphadenitis

Apachi - tumors,

Mutrakrichra - Dysuria, urinary retention

Krumi - worm infestation

Yoni arti - vaginal pain

Pandu - anemia

Shleepada - Elephantiasis

Aruchi - anorexia

Apasmara - Epilepsy

Pleeha - Disease of the spleen, Splenomegaly

Medoroga - obesity

Guda arti - piles

Another variety of Mundi - called Mahamundi is of similar qualities.

- **Adverse effects:** There are no known or reported adverse effects due to the usage of Mundi.
- **Formulations containing Mundi:**  
**Memocap capsule:** This is a proprietary ayurvedic medicine in capsule form, effective as a memory and

nervine tonic. The capsule calms and relaxes the mind to induce good sleep.

- **Maha vishagarbha taila:** This oil told in Ayurveda for the treatment of Disease due to Vata Dosha, Sciatica, Tetanus, Stiffness and tightness in back and limbs, Tinnitus and lack of tactile sensation. The oil is used externally and should be avoided in children and pregnant women.
- **Vata gajankusha rasa:** This is a herbo mineral formulation useful to treat sciatica, paralysis, Brachialgia, spondylosis, arthritis, Torticollis, Thigh muscle stiffness and cramps.
- **Maha manjishtadi kwatha:** This is an ayurvedic medicine in decoction form useful to treat cases of skin diseases, white discharge, burning micturition and acts like a blood purifier.
- **Research articles about Sphaeranthus indicus:**  
**Anti - diabetic activity:** A study was conducted to screening of flowering tops extracts of Sphaeranthus indicus for anti - diabetic activity in alloxan induced hyperglycemia. The oral administration of ethyl acetate, methanolic and hydroalcoholic extracts of Sphaeranthus indicus, given orally at doses of 200 mg/kg/day for 15 days, were found to be produced significant anti - hyperglyceamic action in alloxan induced diabetic rats, using Glibenclamide as standard. The findings obtained in

the experiments demonstrated that Gorakhmundi (*Sphaeranthus indicus* L.) possess potent anti hyperglycaemic and anti - oxidant activity.

- **Anti - bacterial action:** Aerial parts and flowers of *Sphaeranthus indicus* were extracted with n - hexane, benzene, chloroform, ethylacetate and acetone. Significant antibacterial and antifungal activity was observed in hexane extract of flower and aerial parts. The flower extract showed MIC as 0.15 mg/ml against *Staphylococcus aureus* and the highest MIC (5 mg/ml) was noted for *S. epidermidis*.
- **Anti - microbial action:** Leaves of *Sphaeranthus indicus* were extracted with ethanol. The antimicrobial activities of Ethanolic extracts were evaluated by using in vitro disc conc. of 1.25, 2.5 and 5mg/ disc. The minimum inhibitory concentration was calculated using broth tube dilution method. Significant antibacterial and antifungal action was observed in Ethanolic extract of leaves against *B.subtilis*, *S.aureus* and *Candida* respectively.
- **Anti - asthmatic action:** Methanolic extract of aerial parts was evaluated for antiasthmatic activity. Histamine induced bronchospasm in guinea pigs and egg albumin induced bronchospasm in guinea pig model were performed and various parameters were investigated like

PCD time, serum bicarbonate level, differential leukocytes count and histopathological changes in lung. Biochemical estimation like glutathione (GSH) level, malondialdehyde (MDA) level and total proteins were also checked. The result showed that it significantly increased pre convulsion dyspnoea (PCD) time, decreased differential leukocyte counts and serum bicarbonate level. It decreased the oxidative burden by reducing the MDA level and increasing the GSH level which was imbalanced in asthmatic condition, also shown significant action on total protein level. The drug also reduced the inflammation and dilated the bronchioles.

- **Classical categorization:**

Charaka samhita - Rasayana

Bhavaprakasha - Guduchyadi varga

Dhanvantari Nighantu - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Parpatadi varga

Shodala Nighantu - Guduchyadi varga

- **Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Genus: Sphaeranthus

Species: S. indicus

## **40. Akarkarabha Anacyclus pyrethrum Uses, Research, Side Effects**

Akarkarabha - Anacyclus pyrethrum is a herb mentioned in Ayurveda for the treatment of the diseases of the oral cavity, indigestion, swelling, sore throat, cough and diseases caused due to the predominance of vata dosha like paralysis, tremors etc.

Latin name - Anacyclus pyrethrum DC.

Family - Asteraceae

### **Names in different languages:**

Hindi name - Akarkara

English name - Pellitory

Bengali name - Aakarkara

Gujarathi name - Akkorakaro

Marathi name - Akkalakara

Tamil name - Akkirakaram

Telugu name - Akarakaram



**Sanskrit Synonyms** - Akallakah, Agragrahi, Akulakrit

**Morphology:** Akarakaraba is a small hairy perennial herb growing to a height of 3 feet to 4 feet in the plains of North India. The flowers are pale yellow or whitish in color. The plant is a native of Africa and Arab nations and brought to India. It is popular as a food spice. It induces heat, tingling and redness when applied to the skin.

**Anacyclus pyrethrum medicinal properties:**

Rasa (Taste) - Katu (Pungent)

Guna (Qualities) - Ruksha (Dry in nature), Teekshna (Hot)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha), Nadi uttejaka (stimulates the nerves)



**Part used of Akarkara - Root**

**Dosage - Powder 0.5 to 1 g**



**Chemical constituents of Pellitory:**

The root of the plant contains anacycline, isobutylamide, inulin and a trace of essential oil. The plant also contains Anacyclin and Eneteriyne alcohol.

**Uses of Akarakaraba:**

- Medicated oil is prepared using the root of Akarakaraba plant and this medicated oil is applied externally to treat cases of paralysis and nerve disorders like tremors of the body, sciatica etc.
- Decoction is prepared from the root of Anacyclus pyrethrum and it is used for gargling in cases of gingivitis, oral ulcers, dental caries and pain in the tooth.

- Paste prepared from the root is applied over the area having wound associated with pus.
- Fresh juice prepared from the root of the plant is administered as 'Nasya' (drops administered through nostrils) to treat rhinitis.
- The medicated oil prepared using the root of Akarakaraba is applied externally over the joints of the body in case of joint pain.
- The cold infusion prepared from the plant is given in a dose of 30 - 40 ml in cases of slow heart beat/ heart rate.
- The powder prepared from the dried root of Anacyclus pyrethrum is given 1 gram with milk to treat erectile dysfunction and premature ejaculation.
- The cold infusion of the root is given in a dose of 30 - 40 ml in cases of general debility caused by nerve weakness.



**Adverse effect of Akarkara:** If the herb is given in additional dosage, it can lead to tremors, excessive salivation, excessive stimulation of the nerves and even lead to loss of consciousness.

**Formulations cocontaining arakaraba:**

**Ayrozyme tablet:** It is a proprietary medicine useful to treat indigestion, lack of appetite, flatulence and bloating. The syrup form of this medicine is also available.

**Braintab tablet:** It is a proprietary medicine useful to treat insomnia, improves the memory and concentration power.

**6 - X tablet:** It is a proprietary medicine useful to treat permatorrhoea, Premature Ejaculation, Oligospermia and Enlarged Spermatorrhoea.



### **Research articles about Anacyclus pyrethrum:**

**Anti - diabetic activity:** The present work is to study for the first time the anti - diabetic properties of aqueous extract of roots of Anacyclus pyrethrum L. in normal and streptozotocin (STZ) - induced diabetic rats and to achieve a primary pharmacological screening contained in the aqueous extract. The anti - diabetic activity of aqueous extract of roots was evaluated by using normal and STZ induced diabetic rats at a dose of 250 mg/kg p.o daily for 21 days. Blood glucose levels were measured using GOD - POD. Per oral administration of the aqueous extract of the roots (250 mg/kg body weight) to streptozotocin - induced diabetic rats exhibited a significant antihyperglycemic activity in STZ - induced diabetic rats.



Anti - oxidant activity: The ethanolic extract of the root of the plant was studied for the anti - oxidant activity. The extract of the root showed significant action in DPPH, Hydroxyl, hydrogen peroxide, nitric oxide in - vitro scavenging models.

Anti - convulsing activity: The present research work was aimed at evaluating the protective effect of ethanolic extract of roots of *Anacyclus pyrethrum* against electrically and chemically induced seizure in experimental animals. Administration of EEAP significantly delayed the onset of convulsions and reduced the time taken for recovery.

### **Scientific classification of Pellitory:**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Tribe: Anthemideae

Genus: Anacyclus

Species: A. pyrethrum

अकल्लककोष्णो वीर्येण बलक् कटुकोमतः ।

प्रतिशयं च शोथं च वातं चैव विनाशयेत् ॥ (śāligrama nighantu)

akallakakoṣṇo vīryeṇa balakt kaṭukomataḥ |

pratiśyayaṃ ca śoṭhaṃ ca vātaṃ caiva vināśayet || (śāligrama  
nighantu)

## **41. Aranya Jiraka *Centratherum anthelminticum*: Uses, Research, Remedies**

Aranya jeeraka *Centratherum anthelminticum* is a herb mentioned in Ayurveda for the treatment of intestinal worms, skin diseases, fever, gynecological disorders and general debility.

Latin name - *Centratherum anthelminticum* Kuntze

Family - Asteraceae

### **Names in different languages:**

Hindi name - Kali jeeri, Sohrai, Kalijiri, Somraj

English name - Purple fleabane, Achenes, Bitter cumin

Bengali name - Somraj

Gujarathi name - Kali jeeri, Kadavi jeeri

Marathi name - Kadu jeere

Telugu name - Adavi Jilakarra

Tamil name - Kattu seeragam



अरण्यजीरकं चोष्णं तुवरं कटुकं मतम् ।

स्तम्भवातहरं चैव व्रणं चैव विनाशयेत्॥नि.र

बृहत्पाली क्षुद्रपत्रोऽरण्यजीरः कणा तथा ।

वनजीरः कटुः शीतो व्रणहा पञ्चनामकः ॥ रा.नि

araṇyajīrakam coṣṇam tuvaram kaṭukam matam |

stambhavātaharam caiva vraṇam caiva vināśayet||ni.ra

bṛhatpālī kṣudrapatro'raṇyajīraḥ kaṇā tathā |

vanajīraḥ kaṭuḥ śīto vraṇahā pañcanāmakaḥ || rā.ni

### **Uses of Aranya jeeraka:**

- The paste prepared from the seeds of Aranya jeeraka is applied over the area affected with ringworm, boils with pus for treatment.
- The paste prepared from the seeds of Centratherum anthelminticum is applied over the scalp to kill lice.
- To treat leucoderma, paste prepared from 1 part of the seeds of Aranya jeeraka, mixed with 4 parts of purified Arsenic and then grounded using cow urine, is applied externally over the affected area.
- The decoction from the seeds of the plant is given in a dose of 25 - 30 ml to treat intestinal worms.



- 1 gram of Aranya jeeraka is taken with equal amount of black sesame and consumed with hot water to treat skin diseases.
- The cold infusion of the seeds is consumed in a dose of 50 ml to treat general debility and burning micturition.
- The decoction of the seeds is given in a dose of 40 - 50 ml to treat gynecological disorders and difficulty of lactation.
- The decoction of the seeds is given in a dose of 40 - 50 ml to treat cases of insect bite and fever.

**Adverse effects:** No adverse effects are known or reported after the normal use of Aranya jeeraka.

### **Formulations containing Aranya jeeraka:**

**Gastrex tablet:** This is a proprietary ayurvedic medicine useful to treat gastritis, abdominal bloating and flatulence.

**Prasootika kashaya:** This is a proprietary ayurvedic medicine useful as an ideal tonic for postpartum period to restore strength.

### **Research articles about *Centratherum anthelminticum*:**

**Anti - bacterial and Anti - fungal action:** The antibacterial and antifungal effects of chloroform of plant seeds were tested against the different bacteria and fungus eg. *Stalophylococcus aureus*

ATCC - 29737, Escherichia coli ATCC - 14169, Pseudomonas aeruginosa ATCC - 9027, Bacillus Subtilis ATCC - 6633 Fungus Colletotrichum gloeosporioides, Phomopsis dalbergiae, Trichoderma piluliferum. By disc diffusion method or microdilution technique in - vitro. The growth of E - coli, Pseudomonas aeruginosa the gram - negative bacteria and Fungus, have been inhibited by the chloroform extracts of the seeds of the *Centratherum anthelminticum* the extracts did not prevent the growth of the other test organism.

**Anti - oxidant activity:** The phenolic extracts of bitter cumin at microgram concentration showed significant scavenging of DPPH and ABTS radicals, reduced phosphomolybdenum (Mo(VI) to Mo(V)), ferricyanide Fe(III) to Fe(II), inhibited liposomes oxidation and hydroxyl radical induced damage to prokaryotic genomic DNA. The results showed a direct correlation between phenolic acid content and antioxidant activity.

**Anti - hyperglycemic action:** The effect of black/bitter cumin seeds *Centratherum anthelminticum* (L.) Kuntze extract (CA) containing mixture of polyphenolic compounds was tested on rat intestinal  $\alpha$  - glucosidases, human salivary  $\alpha$  - amylase activity and postprandial hyperglycemia in rats. Feeding of CA at 50 - 200 mg/kg body weight (b.wt) to maltose (2.0 g/kg b.wt), loaded rats significantly reduced the postprandial plasma

glucose levels compared with acarbose. This study demonstrated that CA exerts anti - hyperglycemic effect by decreasing postprandial glucose in rats by modulating  $\alpha$  - amylase and glucosidases (sucrase and maltase) activity and thus may be useful for the management of diabetes mellitus.

**Classical categorization:**

Raja Nighantu - Pippalyadi varga

## **42. Kukundara Blumea lacera: Benefits, Remedies, Research, Side Effects**

Kukundara - Blumea lacera, is a plant mentioned in the ayurvedic pharmacopoeia for the treatment of rhinitis, headache, swelling, pus filled wounds, piles, mouth ulcers and fever.

Latin Name - Blumea lacera DC

Family - Asteraceae

### **Names in different languages:**

Hindi name - Kukaraoundha, Kakronda,

Bengali name - Kukasim, Kukarshonga

Gujarathi name - Kokarondha

Marathi name - Kukarbandha

Telugu name - Adavi

Tamil name - Katu (pungent) Mullangi

### **Sanskrit Synonyms -**

Tamrachuda - The upper surface of the leaf resembles copper color

Suksma Patra - The leaves are small

Kukuradadru, Mriduchada

**Morphology:** The plant is a small shrub growing to a height of 1 - 2 feet growing all over India in the temperate climate. The leaves are small and have copper color on the upper surface.

Flowers and fruits are seen in the spring season. The flowers are yellow in color and found in clusters.

**Medicinal properties of Blumea lacera:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Pungent)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha),

**Part used** - Leaf, Root

**Dosage** -

Fresh juice - 10 ml

Paste - 5 to 10 g

**Chemical constituents of Blumea lacera:**

On steam distillation, the leaf yields 0.5% essential oil. The essential oil contains cineol 66, d - fenchone 10 and about 6% citrol. The plant contains coniferyl alcohol, acetylenic compounds and thiophene derivatives. The aerial parts of the plant contain campesterol, hentriacontane, lupeol and its acetate.

कुकुन्दरस्ताम्रचूडः सूक्ष्मपत्रो मृदुच्छदः ।

कुकुन्दरः कटुस्तिको ज्वररक्तकफापहः ।

तन्मूलमार्द्रं निःक्षिप्तं वदने मुखशोषहृत् ॥ भावप्रकाश - पूर्वखण्ड -

मिश्रप्रकरण - गुडूच्यादिवर्ग

acetate.

kukundarastāmracūḍaḥ sūkṣmapatro mr̥ducchadaḥ |

kukundaraḥ kaṭustikto jvararakatakaphāpahaḥ |

tanmūlamārdraṃ niḥkṣiptaṃ vadane mukhaśoṣahṛt ॥

bhāvaprakāśa - pūrvakhaṇḍa - miśraprakaraṇa -

guḍūcyādivarga

### Uses of Kukundara:

- The fresh juice of the leaves of the plant Kukundara is installed as 'Nasya' (Nasal drops) in cases of rhinitis and headache due to sinusitis.
- The fresh juice of the leaves of Blumea lacera is put as eye drops in cases of conjunctivitis.
- The leaves of the plant are slightly heated and applied over the area affected with localized swelling.
- The fresh juice of Kukundara leaf is used as drops or the leaf is made into paste and applied over wound associated with pus.
- In case of external pile mass, the paste of the leaf is made into paste and applied over the area having pile mass.

- In case of internal piles, small tablet is prepared from the paste of the leaf along with powder of black pepper and given internally.
- The decoction from the leaf and root of Blumea lacera is given in a dose of 30 - 40 ml to treat intestinal worms and cases of enlarged liver.
- Gargling is done from the decoction of the root of Kukundara to treat oral ulcers and gingivitis.
- The decoction of the root of Blumea lacera is given in a dose of 45 - 50 ml to treat cases of fever, leucorrhoea and cough.
- In cases of dog bite, the fresh juice of root is administered in a dose of 10 ml.

**Adverse effect:** No adverse effect is reported or known after the usage of Kukundara.

### **Research articles about Blumea lacera:**

**Anti - diarrheal action:** Present study was undertaken to investigate the anti - diarrheal activity of the ethanolic extract from the roots of Blumea eriandra DC (EEBE) and Blumea lacera (EEBL). The doses of EEBE and EEBL both significantly decreased ( $P < 0.001$ ) the total number of diarrheal feces.

**Anti - pyretic activity:** The present study was carried out to determine the antipyretic activity of the methanolic extract of Blumea lacera leaves (BLE) on albino rats. Three ascending

doses of 100 (1/20 LD50), 200 (1/10 LD50) and 400 mg/kg (1/5 LD50) were selected for studying the antipyretic activity of BLE in rats. BLE at dose rates of 200 and 400 mg/kg reduced brewer's yeast induced pyrexia in rats suggesting antipyretic effect of BLE.

**Classical categorization:**

Bhavaprakasha - Guduchyadi varga

**Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Subfamily: Asteroideae

Tribe: Inuleae

Genus: Blumea DC.



### **43. Genda Phool Tagetes erecta: Benefits, Remedies, Research, Side Effects**

Jhandu - Tagetes erecta is a plant which is not mentioned in the ayurvedic pharmacopoeia. The plant is a native of Mexico from where it spread to African continent and then to all over the world.

Latin name - Tagetes erecta Linn.

Family - Asteraceae

#### **Names in different languages:**

Hindi name - Genda, Genda Phool

English name - African marigold, Aztec marigold, Mexican Marigold

Bengali name - Genda

Gujarathi name - Galaghoto

Kannada name - Chendu huvu, Chenduhoovu

Marathi name - Ghenda

Malayalam name - Chendu malli

Telugu name - Banti Puvuu

Parsi name - Gulhazara

Nepalese name - Sayapatri



### **Morphology of Mexican Marigold:**

Jhandu is a small hairy herb growing to a height of 3 - 4 feet. The flowers are dark yellow or orange colored and are cultivated all over India in the temperate climate for its decorative purpose. The flowers are also used for various rituals and for culinary purpose as coloring agent.

### **Jhandu - medicinal Properties:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha).

झण्डूः स्यात्स्थूलपुष्पा तु झण्डूको झेण्डुकस्तथा ।

झण्डूः कटुकषायः स्यात् ज्वरभूतग्रहापहा ॥रा.नि.

jhaṇḍūḥ syātsthūlapuṣpā tu jhaṇḍūko jheṇḍukastathā |

jhaṇḍūḥ kaṭukaṣāyaḥ syāt jvarabhūtagrahāpahā ॥rā.ni.



**Part used** - Leaf, Flower

**Dosage** - Fresh juice 10 to 20 ml

**Chemical constituents of Tagetes erecta:**

The whole plant contains an essential oil limonene, ocimene, linalyl acetate, linalool, tagetone and n - nonyl aldehyde as major components. The flowers contain lutein esters of dipalmitate, dimyristate and monomyristate. The fresh petals contain tagetin and hydroxyflavones.

**Uses of Jhandu:**

The paste of the leaf is applied over the area affected with boils, carbuncles, muscle pain and rheumatism.

Cold infusion of the whole plant is given in a dose 30 - 40 ml to

treat bronchitis, asthma and cough.

The paste of the leaf and flowers are applied over the external pile mass to reduce it.

The distillate obtained from the flowers is used to treat asthma. 4 - 5 drops is added with a glass of hot water and consumed.

The cold infusion prepared from the leaves and flowers is given in a dose of 50 - 60 ml to treat burning micturition.

The paste prepared from the leaves and flowers are applied over fresh wounds to control bleeding or in wound associated with pus as treatment.

Nasya (Nasal administration) of the fresh juice of the leaf is done in epistaxis.

The paste of the leaf is fried in clarified butter or oil and consumed to control bleeding in piles, excessive blood flow during menstruation.

**Adverse effect:** No adverse effect is reported after the normal medicinal use of *Tagetes erecta*.



### **Research articles on *Tagetes erecta*:**

**Anti - bacterial action:** Antibacterial activity of different part of ethenolic extract of *Tagetes erecta* was evaluated using disc diffusion method against gram positive and gram - negative bacterial strains. Streptomycin (Standard) was used for antibacterial activity. The aim of this study was to evaluate the antibacterial activity of extract from this plant parts against 5 bacterial by using Disc Diffusion Method. The result indicates that the leaf and flower of this plant part showed a broad spectrum of anti - bacterial activity.

**Anti - microbial activity:** The aim of the present study was to extract active constituents of *T. erecta* flowers and evaluate their antimicrobial potential. The dried powder of the flower petals was extracted individually by the cold percolation method using different organic solvents like hexane, toluene, ethyl acetate, acetone, methanol and water. Out of the 8 Gram

positive and 8 Gram negative strains studied, *B. cereus* and *K. pneumoniae* were inhibited by all the solvent extracts except aqueous extract. Amongst Gram positive bacteria, highest antibacterial activity was seen against *B. cereus* followed by *S. aureus* and *L. monocytogenes*; while amongst Gram negative strains, highest antibacterial activity was seen against *K. pneumoniae* followed by *P. pseudoalcaligenes*.

**Blood coagulation property:** Blood clotting activity of leaf extract was examined using prothrombin time (PT) test by Owren method. Experiments showed that there was decrease in coagulation time with increase in extract concentration. Marigold leaves extract has shown very good blood coagulation property in lesser quantity i.e., in the range of ?l. Antifungal, antibacterial and antioxidant activity are also analyzed. From the above findings, it can be concluded that along with antibacterial, antifungal and antioxidant properties, marigold leaf extracts are also having very good coagulation property.

**Hepato - protective action:** Current study focus on hepato protective activity of the roots in ethanol extract by ethanol induced hepato - toxicity model. Physical parameters, liver functioning, antioxidant levels and histo - pathological study of the liver were studied to find out hepato protective action of *Tagetes erecta*. Treatment with *Tagetes erecta* root extracts has protected liver from induced hepatotoxicity.

**Classical categorization:**

Raja Nighantu - Parpatadi varga

**Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Genus: Tagetes

Species: *T. erecta*

#### **44. Ayapana Eupatorium triplinervis: Uses, Remedies, Research, Side Effects**

Ayapana - Eupatorium triplinerve is not mentioned in the classical texts of Ayurveda but is used for the treatment of bleeding wounds, animal poisons, indigestion, cough, rhinitis, fever and dysmenorrhea.

Latin name - Eupatorium triplinerve Vahl., Eupatorium triplinervis

Family - Asteraceae

#### **Names in different languages:**

Hindi & Bengali name - Ayapana

English name - Ayapan Tea, Water Hemp

Tamil name - Ayapani

#### **Synonyms:**

Ajaparna - The leaves resembles like the ear of goat

Ayapana is a small herb having strong odor and growing to a height of 2 - 4 feet. The flowers are pale pink and the thin, hairless stem is reddish in color, flowers slaty blue. The plant is a native of Brazil and American continent. It grows all over India in the temperate climate.

#### **Medicinal properties of Ayapan:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)



Veerya (Potency) - Ushna (Hot)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha)

**Part used** - Whole plant

**Dosage:** Fresh juice - 5 to 10 ml

**Chemical constituents:**

The leaves of the plant contain ayapanin, ayapin along with carotene and vitamin C.

अयपर्पन्तु तुवरं तिक्तं वीर्योष्णमेव च।

कफपितहरं हृद्यं ज्वरघ्नं रक्तशोधनम् ॥ ( द्र.गु.वि)

ayaparpantu tuvaram tiktaṃ vīryoṣṇameva ca|

kaphapitaharam haḥyaṃ jvaraghnam raktaśodhanam || ( dra.gu.vi)

## **Uses of Ayapana triplinerve**

- The paste of the leaf or whole plant of Eupatorium triplinerve is applied over fresh wounds to control bleeding.
- The paste of the leaf is applied over bleeding external pile mass to control bleeding and reduce the size of pile mass.
- Cold infusion of Ayapana is given in a dose of 30 - 40 ml to control asthma and treat cough associated with phlegm.

- The decoction of the plant is given in a dose of 30 - 40 ml to treat fever and dysmenorrhea.
- The paste of the leaf or whole plant is applied over the area affected with animal or insect bite.
- The fresh juice of Ayapana leaf is given in a dose of 5 - 10 ml to treat indigestion and fever associated with it.
- The cold infusion of the leaf is given in a dose of 30 - 40 ml in patients suffering from weakness of the cardiac muscles.
- The paste of the leaf is applied over the area affected with ringworm and itching sensation in the skin.

**Adverse effect of Ayapana:** No adverse effect is reported after the normal use of Ayapana.

**Formulations containing Ayapana:**

**Ayapon tablet:** It is a proprietary medicine useful to treat bleeding gums, bleeding piles, bleeding from the nose, purpura and dysfunctional uterine bleeding.

**Research articles about Eupatorium triplinerve:**

**Anti - microbial action:** Petroleum ether, carbon tetrachloride, chloroform, and ethyl acetate extracts of *Eupatorium triplinerve* Vahl. leaves were investigated for their antimicrobial activities against 11 human pathogenic bacteria and six phytopathogenic fungi. The crude extracts showed good activity against the organisms tested herein.

**Antinociceptive and Anti - inflammatory activity:** The petroleum - ether extract of *E. triplinerve* Vahl was subjected to preliminary phytochemical screening. Acute toxicity studies were carried out in Swiss albino mice. Petroleum - ether extract exhibited significant inhibition of acetic acid induced writhing, reduced the paw - licking response time significantly in formalin test and increased the withdrawal latency time in tail immersion test. Carrageenan induced hind paw edema was significantly reduced in rats.

**Anti - oxidant action:** Ayapana is a rich source of naturally occurring coumarin chemicals. Coumarin has clinical value as the precursor for several anticoagulant drugs; most notably, one widely prescribed drug called warfarin. Coumarin and methanolic extract were evaluated for various antioxidant assays like DPPH, Superoxide anion radical, nitric oxide, TBARS taking Rutin as standard. Methanolic extract of *Eupatorium triplinerve* showed better activity against DPPH, Nitric oxide, ABTS, but failed against superoxide and hydrogen peroxide assay. Coumarin showed better activity against DPPH, hydrogen peroxide, ABTS assay but failed against superoxide, Nitric oxide assay.

**Anti - helminthic action:** The ethanolic extracts from the leaves of *Eupatorium triplinerve* and the rhizome of *Alpinia galangal* were compared for their anthelmintic activities, based on

traditional claims. *Eupatorium triplinerve* exhibited a dose dependent anthelmintic activity in both the models at the concentrations of 50mg/ml and 100mg/ml, thus indicating a broad spectrum of action, whereas *Alpinia galanga*, as compared to *Eupatorium triplinerve*, failed to show any activity against *Pheritima posthuma*.

### **Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Tribe: Eupatorieae

Genus: *Ayapana*

Species: *A. triplinervis*

## **45. Common Dandelion Taraxacum officinale Uses, Research, Side Effects**

Common Dandelion Taraxacum officinale is a plant mentioned in Ayurveda for the treatment of skin diseases, fever, difficulty in micturition, indigestion, jaundice and general debility.

Latin name - Taraxacum officinale Weber ex Wiggers

Family - Asteraceae

### **Names in different languages:**

Hindi name - Dudhali

English name - Common dandelion

Gujarati name - Pathradi

Marathi name - Batthur

Urdu name - Kaanful, Kaasani Dashti

**Sanskrit Synonyms** - Payasvini, Lutari



### **Morphology of Common Dandelion:**

Dugdhapeni is a small shrub which grows in the Himalayan

belt till an altitude of 15000 feet. It can be found growing in temperate regions of the world, in lawns, on roadsides, on disturbed banks and shores of water ways, and other areas with moist soils. *Taraxacum officinale* grows from generally unbranched taproots and produces one to more than ten stems that are typically 5 - 40 cm (2.0 - 15.7 in) tall, but sometimes up to 70 cm (28 in) tall. The stems can be tinted purplish, they are upright or lax, and produce flower heads that are held as tall as or taller than the foliage. Plants have milky latex and the leaves are all basal. The yellow flower heads lack receptacle bracts and all the flowers, are ligulate and bisexual. Dandelions are harvested from the wild or grown on a small scale as a leaf vegetable.



### **Properties:**

Rasa (Taste) - Tikta (Bitter), Katu (Pungent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in

nature), Teekshna (Hot)

Veerya (Potency) - Ushna (Hot)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha)

**Part used** - Root and Stem

**Dosage** -

Powder of root - 1 to 3 g

Decoction - 25 to 50 ml



**Chemical constituents of Taraxacum officinale:**

The leaves of the plant contain sesquiterpene lactones, triterpenes and sterols. The whole plant contains eudesmanolides. Vitamin A content in the plant is higher than in carrots.

दुग्धफेनी पयःफेनी फेनदुग्धा पयस्विनी ।

लूतारिर्व्रणकेतुश्च गोजापर्णी च सप्तधा ॥

दुग्धफेनी कटुस्तिक्ता शिशिरा विषनाशिनी ।

व्रणापसारिणी रुच्या युक्त्या चैव रसायनी ॥ राजनिघण्टु - पर्पटादिवर्ग

lūtārirvraṇaketuśca gojāparṇī ca saptadhā ॥

dugdhaphenī kaṭustiktā śísirā viṣanāśinī ।

vraṇāpasāriṇī rucyā yuktyā caiva rasāyanī ॥ rājanighaṇṭu -

parpaṭādivarga

### **Uses of Dugdhapheni:**

- The decoction prepared from the plant *Taraxacum officinale* is given in a dose of 25 - 30 ml to treat jaundice and hepatitis.
- The fresh juice prepared from the leaves and root is given in a dose of 10 - 15 ml to treat fever and indigestion.
- The decoction prepared from the root of Dugdhapheni is given in a dose of 20 - 25ml to treat intestinal worms and liver diseases.
- The paste of the leaf or root is prepared and applied over the area affected with skin diseases.



- The cold infusion prepared from *Taraxacum officinale* is given in a dose of 30 - 40 ml to treat burning micturition and difficulty in micturition.
- The decoction is given to treat general debility and poisonous cases due to insect bite.
- The stem is used as a vegetable in some parts of North India and other parts of the world.

**Adverse effects:** Patients suffering from renal diseases have to take precaution during the use of Dugdhapheni as the herb contains high amount of potassium.



**Formulations containing Dugdhapheni:**

**Biolivac syrup and tablet:** Biolivac Syrup & Tablet is a proprietary Ayurvedic medicine. It is a hepato - protective medicine used in the treatment of varieties of liver disorders.

## **Research articles about Taraxacum officinale:**

**Anti - inflammatory action:** This study aims to ascertain the anti - inflammatory effect of the Taraxacum officinale ethanolic leaf extract (TOLE) on pulmonary vascular permeability and H1 - receptors in the ileum of ovalbumin (OA) - sensitized guinea - pigs. The results showed a significant dose - dependent reduction in anti - histaminic activity ( $p < 0.05$ ) on isolated guinea - pig ileum. Histopathological lesions such as perivascular oedema, hypertrophy of smooth muscles, infiltration of eosinophils and basophils were reduced in the lungs of TOLE treated group compared to OA - sensitized controls.

## **Classical categorization:**

Raja Nighantu - Parpatadi varga

## **Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Tribe: Cichorieae

Genus: Taraxacum

Species: T. officinale

## **46. Chikkika Centipeda minima: Benefits, Remedies, Research, Side Effects**

Chikkika - Centipeda minima is a plant mentioned in Ayurveda for the treatment of rhinitis, headache, toothache, skin disease and indigestion.

Latin name - Centipeda minima Linn.

Family - Asteraceae

### **Names in different languages:**

Hindi name - Nakachikani

English name - Sneeze wort, Spreading Sneeze weed

Bengali name - Mechetha

Gujarathi name - Nakacheenkani

Marathi name - Nakashinkani

### **Synonyms -**

Kshavaka, Chikkani, Udvegana - It induces sneezing

Kshudhabhijanana, Kshut Vibodhaka - induces hunger

Granadukhada - Cause pain in the nose after sneezing

Chidmapatra, Nasa Sandanaka,

**The plant has an alternate Latin name as Centipeda orbicularis Lour.**

Chikkika is a small plant growing all over India in the damp areas. The plant is a native of Australia and Newzeland.

### **Centipeda minima - medicinal properties:**

Rasa (Taste) - Katu (Pungent)

Guna (Qualities) - Teekshna (Hot)

Veerya (Potency) - Ushna (Hot)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha). Increases Pitta Dosha.

**Part used** - Seed

**Dosage** - Powder of seed 1 - 3 g

### **Chemical constituents of Spreading Sneeze weed**

The plant contains flavonoids, sesquiterpenes and amide.

छिक्किका छिद्यपत्रा च नासासन्दनकस्तथा ।

क्षवकः क्षरकस्तीक्ष्णः क्रूर उद्वेगनस्तथा ॥

क्षुधाभिजननो राजक्षवकः क्षुद्धिबोधकः ।

क्षवकः कटुकः पाके रसे रुच्यग्निपित्तकृत् ॥

तीक्ष्णोष्णः कफवातास्रदृक्कुष्ठक्रिमिजिल्लघुः । कैयदेवनिघण्टु -

ओषधिवर्ग

छिक्कनी क्षवकृतीक्ष्णा छिक्किका घ्राणदुःखदा ।

छिक्कनी कटुका रुच्या तीक्ष्णोष्णा वह्निपित्तकृत् ।

वातरक्तहरी कुष्ठकृमिवातकफापहा ॥ भावप्रकाश - पूर्वखण्ड -

गुडूच्यादिवर्ग

छिक्किका छिद्यपत्रा च नासासन्दनकस्तथा ।

क्षवकः क्षरकस्तीक्ष्णः क्रूर उद्वेगनस्तथा ॥

क्षुधाभिजननो राजक्षवकः क्षुद्धिबोधकः ।

क्षवकः कटुकः पाके रसे रुच्यग्निपित्तकृत् ॥

तीक्ष्णोष्णः कफवातास्रदृक्कुष्ठक्रिमिजिल्लघुः । कैयदेवनिघण्टु -

ओषधिवर्ग

छिक्कनी क्षवकृतीक्ष्णा छिक्किका घ्राणदुःखदा ।

छिक्कनी कटुका रुच्या तीक्ष्णोष्णा वह्निपित्तकृत् ।

वातरक्तहरी कुष्ठकृमिवातकफापहा ॥ भावप्रकाश - पूर्वखण्ड -

गुडूच्यादिवर्ग

chikkikā chidyapatrā ca nāsāsandanakastathā ।

kṣavakaḥ kṣarakastīkṣṇaḥ krūra udveganastathā ॥

kṣudhābhijanano rājakṣavakaḥ kṣudvibodhakaḥ ।

kṣavakaḥ kaṭukaḥ pāke rase rucyagnipittakṛt ॥

tīkṣṇoṣṇaḥ kaphavātāsradrḥkkuṣṭhakrimijillaghuḥ ।

kaiyadevanighaṇṭu - oṣadhivarga

chikkanī kṣavakṛttīkṣṇā chikkikā ghrāṇaduḥkhadā ।

chikkanī kaṭukā rucyā tīkṣṇoṣṇā vahnipittakṛt ।

vātaraktaharī kuṣṭhakṛmivātakaphāpahā ॥ bhāvaprakāśa -

pūrvakhaṇḍa - guḍūcyādivarga

chikkikā chidyapatrā ca nāsāsandanakastathā ।

kṣavakaḥ kṣarakastīkṣṇaḥ krūra udveganastathā ||  
kṣudhābhijanano rājakṣavakaḥ kṣudvibodhakaḥ |  
kṣavakaḥ kaṭukaḥ pāke rase rucyagnipittakṛt ||  
tīkṣṇoṣṇaḥ kaphavātāsradrkkuṣṭhakrimijillaghuḥ |  
kaiyadevanighaṇṭu - oṣadhivarga  
chikkanī kṣavakṛttīkṣṇā chikkikā ghrāṇaduḥkhadā |  
chikkanī kaṭukā rucyā tīkṣṇoṣṇā vahnipittakṛt |  
vātaraktaharī kuṣṭhakṛmivātakaphāpahā || bhāvaprakāśa -  
pūrvakhaṇḍa - guḍūcyādivarga

### **Ayurvedic uses of Chikkika:**

Ruchikrut - improves taste, relieves anorexia

Agnikrut - Improves digestion strength

Pittakrut - Increases Pitta Dosha

Indicated in

Eye disorders

Kapha and Vata Disorders

Kushta - skin diseases

Krimi - worm infestation

Vatarakta - Gout

### **Uses of Chikkika - Centipeda minima:**

- Nasya (Installation of nasal drops) from the leaves of the plant is done to relieve the condition of sinusitis and headache.
- The paste prepared from the seeds of the plant *Centida minima* is applied externally to treat skin diseases like ringworm, scabies etc.
- The powder of the seed is given in a dose of 2 - 3 g with milk to improve the strength of the nerves and treat general debility.
- The decoction of the plant is given in a dose of 30 - 40 ml to expel the phlegm and control cough.
- The powder of the seeds of *Centida minima* is given in a dose of 2 - 4 g to treat erectile dysfunction.
- The cold infusion prepared from the seeds of Chikkika is given in a dose of 20 - 30 ml to treat indigestion and lack of appetite.
- The decoction of the seed is given in a dose of 25 - 30 ml to treat intestinal worms.
- In cases of hardness of the liver and spleen, the decoction of the plant is given regularly.
- The paste prepared from the leaves of the plant is applied over the area affected with pain.

**Adverse effect of Chikkia** - Excessive use of Chikkika can cause inflammation of the nasal mucosa and pain in the nose.

## Research articles about *Centipeda minima*:

**Anti - microbial action:** The present study is designed for phytochemical analysis of *Centida minima* and extraction of bioactive compound by HPLC, further antimicrobial activity of the bio active compounds has been investigated by crude and the column extract and anti - proliferative activity on prostate epithelial cancer cell (PC3). Our study revealed the presence of the bio active component plenolin of this plant has good antimicrobial activity and also exhibiting anti - cancer properties.

**Anti - protozoal action:** *In vitro* activity against *Giardia intestinalis* was used for bioassay - guided fractionation of crude extracts from *C. minima*. The sesquiterpene lactone, brevilin A was isolated and found to have anti giardial activity ( $IC_{50} = 16.1 \mu M$ ) and was similarly active *in vitro* against *Entamoeba histolytica* ( $IC_{50}$  between 4.5 and 9  $\mu M$ ) and against *Plasmodium falciparum* ( $IC_{50} = 9.42 \mu M$ ).

**Anti - bacterial thymol:** Two new monoterpenoids, 8,10 - dihydroxy - 9(2) - methylbutyryloxythymol (1) and 10 - hydroxy - 8,9 - dioxyisopropylidene - thymol (2), together with five known thymol derivatives: 8,9,10 - trihydroxythymol (3), thymol -  $\beta$  - glucopyranoside (4), 9 - hydroxythymol (5), 8,10 - dihydroxy - 9 - isobutyryloxythymol (6), and 8 - hydroxy - 9,10 - diisobutyryloxythymol (7), were isolated from *Centipeda*



*minima*. The antibacterial activities of compounds 1 - 7 were evaluated against eight microbial strains by the agar dilution method.

**Classical categorization:**

Bhavaprakasha - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

**Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Tribe: Astereae

Genus: Centipeda

## **47. Chicory Cichorium intybus: Benefits, Remedies, Research, Side Effects**

Chicory - Cichorium intybus is used for the treatment of headache, insomnia, fever, weakness of the cardiac muscles and general debility.

Latin name - Cichorium intybus Linn.

Family - Asteraceae

### **Names in different languages:**

Hindi name - Kasani, Chichori, Kasni

English name - Chicory, Endive, Blue daisy

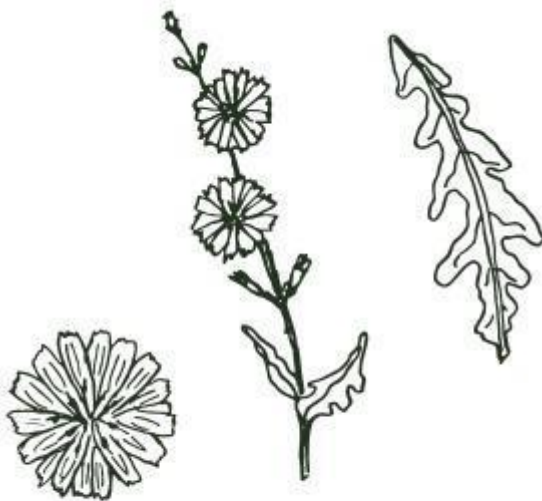
Arabic name - Hinduba

Tamil name - Kasinikkerai



## **Morphology:**

Chicory is a small shrub growing to a height of 2 - 3 feet. The flowers are usually blue colored, 1 - 1.5 inch in diameter. The root is fleshy with white color inside and brown color outside. When flowering, chicory has a tough, grooved, and more or less hairy stem, from 30 to 100 cm (10 to 40 in) tall.



CICHORIUM INTYBUS

## **Habitat of Chicori**

The plant is a native of Europe which later spread to other parts of world. In India the plant is found in North West and South East part.

Usually the seeds or the root is dried, roasted and used along with coffee seeds as drink.

## **Properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in

nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha)



**Part used** - Leaf, Root and Seed

**Dosage** -

Powder of seed - 3 to 6 g

Juice of leaf - 10 to 20 ml

Root powder - 3 to 5 g



### **Chemical constituents of Cichorium intybus**

The herb contains up to 60% inulin, sesquiterpene lactones and coumarins. Raw chicory root contains citric acid and tartaric acid. The roasted seeds of chicory contain acetic, lactic, pyromucic, palmitic and tartaric acid. When added to coffee, the chicory root counteracts caffeine.

कासनी लघुतिकोष्णा कफपित्तहारि कटुः ।

यकृद्विकारो हद्रोगो मूत्रकृच्छ्रे च शस्यते॥ D.G.V

kāsanī laghutiktoṣṇā kaphapittahāri kaṭuḥ |

yakṛdvikāro hadrogo mūtrakṛcchre ca śasyate|| D.G.V

### **Uses of Kasani:**

- The paste prepared from the leaves of Kasani is applied on forehead in cases of headache.

- Cold infusion prepared from the roasted root of *Cichorium intybus* is given in a dose of 25 - 30 ml in cases of insomnia.
- The cold infusion or decoction prepared from the seeds or root of the plant is given in a dose of 30 ml to treat enlargement of the liver and spleen.
- The powder of the roasted seeds is given regularly in a dose of 3 - 5 g with milk as cardiac tonic.
- The powder of the seeds or root is given with hot water to treat fever and indigestion.
- The decoction prepared from the root is given in a dose of 25 - 30 ml in cases of dysmenorrhea.
- The drink prepared from the dried and roasted seeds or roots is given to patients suffering from weakness of the nerves and general debility.

**Adverse effect of Kasani:** Prolonged or excessive use of Kasani has sedative action. Hence people working near machines or operating them, drivers should be careful.

### **Formulations containing Kasani:**

**Vasuliv syrup:** It is a proprietary ayurvedic medicine useful to treat liver disorders, lack of appetite and promotion of normal growth of hepatic cells.

**Bonnisan drops:** It is a proprietary ayurvedic medicine useful in treating colic pain in infants, diarrhea, dysentery, abdominal pain and dyspepsia.

**Amlycure tablet:** It is a proprietary ayurvedic medicine useful as hepato protective agent, aids in digestion and increases the appetite.

### **Research articles on Cichorium intybus:**

**Anti - bacterial activity:** The hexane and ethyl acetate root extracts of chicory showed pronounced inhibition than chloroform, petroleum ether and water extracts. Root extracts showed more inhibitory action on *Bacillus subtilis*, *Staphylococcus aureus* and *Salmonella typhi* than *Micrococcus luteus* and *Escherichia coli*.

**Hepato - protective action:** The purpose of the study was to assess the phytochemical and hepatoprotective activity of aqueous ethanolic extract of fresh dried leaves of *Cichorium intybus* against Nimesulide intoxicated albino rats. There was a significant changes in biochemical parameters (increases in serum glutamate pyruvate transaminase (SGPT), Serum glutamate oxaloacetate transaminase (SGOT), alanine phosphatase (ALP) and serum total bilirubin (TB) level) in Nimesulide intoxicated rats, which were restored towards normal values in *Cichorium intybus* (100 mg/kg, 200 mg/kg and 300 mg/kg, p.o.) treated animals. Histo pathological examination of liver tissues further substantiated these findings. Therefore, outcome of the present study ascertains

that the leaf extract of *Cichorium intybus* possesses significant hepato protective activity.

**Anti - microbial activity:** The present study was designed to evaluate the antimicrobial activity of three extracts of medical plants, *Cichorium intybus*, *Dorema aucheri* and *Prangos ferulacea* against some food borne pathogens. The studied extracts displayed various degrees of antibacterial activities.

**Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Tribe: Cichorieae

Genus: *Cichorium*

Species: *C. intybus*



## **48. Rasna Pluchea lanceolata, Vanda roxburghii, Alpinia galanga Uses, Research**

Rasna - Pluchea lanceolata is a herb mentioned in Ayurveda for the treatment of pain, indigestion, gout, cough and general debility. **Vanda roxburghii** and **Alpinia galanga** is also taken as 'Rasna' in Bengal and South India respectively.

Latin name - Pluchea lanceolata C.B Clarke

Family - Asteraceae

### **Names in different languages:**

Hindi name - Rayasan, Vayusurai

Punjabi name - Sarmai

In many Indian languages, the plant is known as Rasna.



### **Sanskrit Synonyms of Rasna:**

Elaparni - The leaf resembles the leaf of cardamom plant

Gandhanakuli, Gandhamoola, Sugandha/ Surabhi - The leaf has

good smell

Yuktarasa, Yukta - The plant can be used to treat many diseases

Rasadya, Atirasa, Rasya, Surasa, Rasana, Rasna - Which increases the rasa dhatu

Suvaha, Surabhi, Shreyasi.



s **Morphology:** Rasna is a small plant growing to a height of 2 - 4 feet in bushes. The flowers are white, pale yellow or pale purple. The plant is found and cultivated in the plains of Ganga and North West part of India.



**Properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Guru (Heavy)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

Prabhava (special action) - Vishagna (controls the poison)



**Part used** - Leaf, Rhizome

**Dosage** -

Decoction - 40 to 50 ml

Powder - 5 to 6 g



**Chemical constituents:**

The stem and leaves of the plant contains moretenol,

neolupenol, hexacosanoic and tetracosanoic acid, triacontanol, stigmasterol and beta - sitosterol - D - glucoside.

### **Uses of Rasna:**

- The paste of the leaf of Rasna is applied over the body to increase the body temperature in cold climate area.
- The paste prepared from the rhizome of Rasna is applied over the joint area in cases of pain in the joints.
- The cold infusion prepared from the leaves or rhizome is given in a dose of 40 - 50 ml to treat asthma and cough.
- The decoction prepared from the rhizome of *Pluchea lanceolata* is given in a dose of 30 - 40 ml to treat indigestion, abdominal pain and fever arising due to indigestion.
- The decoction acts like a blood purifier if consumed daily in a dose of 20 - 30 ml.
- The decoction from the leaves and rhizomes acts against plant poisons.
- The paste of the leaf and rhizome of rasna is applied over the area affected with swelling and pain.

एलापर्णी युक्तरसा सुवहा गन्धनाकुली ।

सुगन्धातिरसा रस्या श्रेयसी सुरभिर्मता ॥ १०४२ ॥

रास्ना नामा वायसुरस्वहा इति लोके ।

रास्ना तिक्ता गुरुष्णामपाचनी कफपित्ताहा ।

निहन्ति शोफवातास्रश्वासकासविषज्वरान् ॥ १०४३ ॥

हिध्माशीतामवाताद्यवातशूलोदराणि च । १०४४ ।

कैयदेवनिघण्टु - १. ओषधिवर्ग

रास्ना युक्तरसा रस्या श्रेयसी रसना रसा ।

सुगन्धमूलाऽतिरसा सैव पूतिरसा स्मृता ॥ ३०० ॥

रास्ना तिक्तोष्णगुर्वी स्याद्विषवातास्रकासजित् ।

शोफकम्पोदरक्षेष्मशमन्यामस्य पाचनी ॥ ३०१ ॥

धन्वन्तरिनिघण्टु - १. गुडूच्यादिवर्ग

रास्ना युक्तरसा रस्या सुवहा रसना रसा ।

एलापर्णी च सुरसा सुगन्धा श्रेयसी तथा ॥ १४३ ॥

रास्नामपाचिनी तिक्ता गुरुष्णा कफवातजित् ।

शोथश्वाससमीरास्रवातशूलोदरापहा ।

कासज्वरविषाशीतिवातिकामयसिध्महत् ॥१४४॥

भावप्रकाश - पूर्वखण्ड - मिश्रप्रकरण - २. हरीतक्यादिवर्ग

रास्ना युक्तरसा रम्या श्रेयसी रसना रसा ।

सुगन्धिमूला सुरसा रसाद्याऽतिरसा दश ॥८०॥

रास्ना तु त्रिविधा प्रोक्ता मूलं पत्रं तृणं तथा ।

जेये मूलदले श्रेष्ठे तृणरास्ना च मध्यमा ॥८१॥

रास्ना गुरुश्च तिक्तोष्णा विषवातास्रकासजित् ।

शोफकम्पोदरश्लेष्मशमनी पाचनी च सा ॥८२॥

राजनिघण्टु - ६. पिप्पल्यादिवर्ग

elāparṇī yuktarasā suvahā gandhanākulī |

sugandhātirasā rasyā śreyasī surabhirmatā ||1042||

rāsnā nāmā vāyasurasvahā iti loke |

rāsnā tiktā gurūṣṇāmapācanī kaphapittahā |

nihanti śophavātāsraśvāsakāsaviṣajvarān ||1043||

hidhmāsītāmavātādhyavātaśūlodarāṇi ca |1044|

kaiyadevanighaṇṭu - 1. oṣadhivarga

rāsnā yuktarasā rasyā śreyasī rasanā rasā |

sugandhamūlā'tirasā saiva pūtirasā smṛtā ||300||

rāsnā tiktoṣṇagurvī syādviṣavātāsrakāsajit |

śophakampodaraśleṣmaśamanyāmasya pācanī ||301||

dhanvantarinighaṅṭu - 1. guḍūcyādivarga  
rāsnā yuktarasā rasyā suvahā rasanā rasā |  
elāparṇī ca surasā sugandhā śreyasī tathā ||143||  
rāsnāmapācinī tiktā gurūṣṇā kaphavātajit |  
śoṭhaśvāsasamīrāsraṅvātaśūlodarāpahā |  
kāśajvaraviṣāśītivātikāmayasidhmahr̥t ||144||

bhāvaprakāśa - pūrvakhaṇḍa - miśraprakaraṇa - 2.  
harītakyaḍdivarga

rāsnā yuktarasā ramyā śreyasī rasanā rasā |  
sugandhimūlā surasā rasāḍhyā'tirasā daśa ||80||  
rāsnā tu trividhā proktā mūlaṃ patraṃ tṛṇaṃ tathā |  
jñeye mūladale śreṣṭhe tṛṇarāsnā ca madhyamā ||81||  
rāsnā guruśca tiktoṣṇā viṣavātāsrakāśajit |  
śophakampodaraśleṣmaśamanī pācanī ca sā ||82||  
rājanighaṅṭu - 6. pippalyādivarga

### **Benefits as per Ayurveda:**

Amapachani - Digestive, relieves Ama Dosha

### **Indicated in -**

Shopha - inflammation

Vatasra - Gout

Shwasa - asthma and chronic respiratory disorders

Kasa - cough, cold

Visha - Toxic conditions, poisoning



Jwara - fever

Hikka - hiccups

Amavata

Shoola - abdominal colic pain

Udara - ascites, enlargement of the abdomen

**Adverse effect:** No adverse effect is reported after the normal usage of Rasna.

**Types:**

Raja Nighantu Explains About three types.

MoolaRasna

Patra Rasna

Truna Rasna

The first two varieites are considered superior.

**Formulations containing Rasna:**

**Rasna erandadi kashaya:** This is an ayurvedic decoction useful to treat backache, low back pain, pain in flanks, pain in the muscles and locked jaw.

**Rasna saptaka kashaya:** This is an ayurvedic decoction useful to treat rheumatoid arthritis, low back pain, muscle twitch, pain due to lumbar spondylosis, thigh cramps, muscle stiffness, sciatica, abdominal colic pain etc.

**Rasnadi guggulu:** This is a medicine in tablet form given to treat headache, joint pains, nerve related pains, fistula in ano etc.

**Maharasnadi kashaya:** This is an ayurvedic decoction useful to treat joint pain, inflammation of joints and pain in the muscles.

**Dadhika ghrita:** This is an ayurvedic medicine in ghee base useful in preparatory procedure called snehakarma for the treatment of epilepsy, toxic conditions, dysuria, Ascites, malabsorption syndrome, bloating, etc. This is prescribed for gulma and is especially efficacious in vata based gulma, colic, catches, asthma, piles, grahani, loss of appetite and vaginal ailments.

**Rasnadi choorna:** This is a medicine in powder form and is useful to treat headache and sinusitis.

**Ostikot tablet:** This is a proprietary ayurvedic medicine in tablet form and helps in managing osteo - arthritis as an anti - inflammatory agent and pain reliever.

**Ashotone tablet:** This is a proprietary ayurvedic medicine in tablet form. It is a uterine tonic, useful in menorrhagia - shortened menstrual cycle and heavy periods.

**Rheumat tablet:** This is a proprietary ayurvedic medicine in tablet form. It is a powerful anti - inflammatory and analgesic property useful to treat joint disorders and muscle pain.

### **Research articles about Pluchea lanceolata:**

**Anti - cancer property:** There is a growing body of evidence that suggests that the plant contains potent anti - proliferative agents that may serve as a basis for anti - cancer drugs in the

near future. Basic scientific research work on the plant during the past fifteen years has increased our understanding of the biochemical composition of the plant as well as the antitumor properties of its crude and purified extracts. Several anticancer studies on *A. officinarum* have focused on elucidating the molecular mechanisms underlying the preventive, protective, tumor suppressive and apoptotic activities against various types of cancers.

**Anti - emetic action:** Bioassay - guided fractionation of the antiemetic constituents of *Alpinia officinarum* was performed, and eight compounds (**1–8**) including a new compound were isolated. The structure of the new compound **7**, which also showed antiemetic activity, was determined as 5 - hydroxy - 7 - (4 - hydroxy - 3 - methoxyphenyl) - 1 - (4 - hydroxyphenyl) - 3 - heptanone.

**Anti - oxidant activity:** Ethanolic extract of *Alpinia galanga* showed the potent scavenging activity by DPPH method with the IC<sub>50</sub> value of  $69.5 \pm 1.375$   $\mu\text{g/ml}$ , by lipid per oxidation method with the IC<sub>50</sub> value of  $77 \pm 1.876$   $\mu\text{g/ml}$ , hydrogen peroxide radical scavenging activity with the IC<sub>50</sub> value  $55 \pm 1.59$   $\mu\text{g/ml}$ , ABTS radical scavenging method with the IC<sub>50</sub> value  $0.086 \pm 1.10$   $\mu\text{g/ml}$ .

**Anti - inflammatory activity:** Petroleum ether, Chloroform, Methanolic and Aqueous methanolic (1:1) extracts of *Alpinia*

galanga Willd. were investigated for anti - inflammatory activity in carrageenan induced paw edema in Wistar rats, and compared to a positive control drug, Ibuprofen. Petroleum extract, Chloroform extract and Aqueous methanolic extracts produced 28.19, 30.13, 23.34 % of maximum inhibition, which was not significant when compared to the control. The study strengthens the claim of anti - inflammatory activity for the plant; the effect of methanolic extract may be due to the inhibition of prostaglandin synthesis.

### **Classical categorization:**

Charaka Samhita -

Anuvasanopaga - group of herbs useful in Anuvasana basti

Vayasthapana - anti ageing group of herbs

Sushruta Samhita - Arkadi gana,

Sleshmashamshamana varga - group of herbs useful in balancing down Kapha Dosha.

Kaiyadeva Nighantu - Oshadhi Varga

Dhanvantari Nighantu - Guduchyadi Varga

Bhavaprakasha - Haritakyadi Varga

Raja Nighantu - Pippalyadi Varga

### **Scientific classification**

Kingdom: Plantae

Order: Asterales

Family: Asteraceae

Subfamily: Asteroideae

Tribe: Inuleae

Genus: Pluchea

## **49. Madhuca longifolia: Butter Tree: Uses, Remedies, Research, Side Effects**

Madhuka - Madhuca longifolia (Koen.) is used as a fermenting initiator in many Ayurvedic medicines. It is described in Ayurveda for treating skin diseases, nerve disorders, cough, burning sensation and diarrhea. **Madhuca indica** is used as synonym Latin name for the plant Madhuka.

Latin name - Madhuca longifolia, Madhuca indica

Family - Sapotaceae

### **Names in different languages:**

Hindi name - Mahua, mahva, mahwa

English name - Butter tree, Honey tree

Bengali name - Mahuya, Mohua

Gujarathi name - Mahudo

Kannada name - Hippe mara

Malayalam name - Iluya

Tamil name - Illupi

Telugu name - Ippa Chettu, Ippa puvvu



### **Sanskrit Synonyms of Madhuka:**

Madhushteela, Madhura, Madhu, Guda Pushpa, Madhupushpa -

The flowers of the plant is sweet in taste

Dola phala - The fruit is round in shape

Hrasvapushpa, Hrasva phala - small sized flowers and fruits

Mahadruma - The tree is large

Deerghapatra - elongated leaves

Teekshna Sara, Elaphala,

Rodhravrushka, Mahadruma - big tall tree

Madhvanga, Madhula, Gaurashakhi, Neeravruksha,

Vanaprastha



**Morphology:** Madhuka is a fast - growing tree that grows to approximately 15 - 18 meters in height, possesses evergreen or semi - evergreen foliage. The tree is found in states of North India like Uttar Pradesh and Bihar. The flowers are pale yellow and sweet in taste from which alcohol is prepared. The fruits are small and round in shape. The seeds of the tree yields oil.

**Mahuva - medicinal properties:**

Rasa (Taste) Madhura (Sweet), Kashaya (Astringent)

Guna (Qualities) - Guru (Heavy), Snigdha (Slimy)

Vipaka - Madhura (Undergoes Sweet taste after digestion)

Veerya (Potency) - Sheeta (Cold)



Karma (Actions) - Vatapitta shamaka (reduces vitiated vata and pitta dosha) Increases Kapha Dosha.

**Part used** - Flowers, Seeds and Oil

**Dosage** -

Juice of flower - 10 to 20 ml

Decoction of bark - 50 to 75 ml



**s Chemical constituents of Madhuca indica:**

The fruit pulp yields triterpenoids, n - hexacosanol, beta - D - glucoside of beta - sitosterol. The nut shell has quercetin and dihydroquercetin. The seeds yield saponins - 2,3 - di - O - glucopyranoside of basic acid. The bark of the trunk contains lupeol acetate, beta - amyryn acetate, alpha - spinasterol, erythrodiol monocaprylate, betulinic acid and oleanolic acid.



### **Uses of Madhuca longifolia:**

- The oil extracted from the seeds of the Madhuka plant is applied over the area affected with skin diseases and body pain.
- Nasal administration of the fresh juice of the flowers of Madhuka longifolia is done in diseases of vitiated pitta dosha like headache, burning sensation of the eyes etc.
- The dried flowers of madhuka is boiled in milk and administered in a dose of 40 - 50 ml to treat weakness of the nerves and diseases of the neuro muscular system.

- The decoction prepared from the bark of the tree is given in dose of 30 - 40 ml to treat Irritable Bowel Syndrome and diarrhea.
- Fresh juice of the flowers is given in a dose of 20 - 25 ml to treat hypertension, hiccups and dry cough.
- The flowers of madhuka plant is boiled in milk and added with sugar candy and given in a dose of 40 - 50 ml to treat less sperm count, premature ejaculation and production of less milk in post - partum period.
- The cold infusion prepared from the flowers or bark of the plant s given in dose of 30 - 40 ml to treat burning micturition, fever and burning sensation of the body.
- The cold infusion or milk boiled with flowers of the plant is beneficial to patients suffering from general debility.

ढोलफलस्तीक्ष्णसारो मधुको गुडपुष्पकः ।

एलाफलो मधुष्ठीलो मधुको मधुरो मधुः ॥

मधुकोष्ठो रोध्रवृक्षाग्रववासा महाद्रुमः ।

मध्वाङ्गोन्यो मधूल ह्रस्वपुष्पफलस्मृतः ॥

गौरशाखी नीरवृक्षो स्याज्जलजो दीर्घपत्रकः ।

वानप्रस्थो मधुष्ठीलो ह्रस्वपुष्पफलः स्मृतः ॥

मधूकस्तुवरस्तिको व्रणानिलकफापहः ।  
तत्पुष्पं मधुरं शीतमहृद्यं बृंहणं गुरु ॥  
स्निग्धं विकासि तीक्ष्णोष्णं तत्फलं गुरु शीतलम् ।  
अहृद्यं शुक्रलं स्निग्धं मधुरं रसपाकयोः ॥  
विष्टम्भि बृंहणं बल्यं कफकृन् मारुतापहम् ।  
हन्ति पितास्रतृडाहश्वासकासक्षतक्षयान् ॥  
पक्वं तु तत्फलं बल्यं पित्तमारुतनाशनम् ।  
कषायं स्वादु माधूकं तैलं पित्तकफप्रणुत् ॥ कैयदेवनिघण्टु - ओषधिवर्ग  
मधूको मधुवृक्षस्तु मधुष्ठीलो मधुस्रवः ।  
गुडपुष्पो लोध्रपुष्पो वानप्रस्थोऽथ माधवः ॥  
मधूकं मधुरं शीतं पित्तदाहश्रमापहम् ।  
वातलं न तु दोषघ्नं वीर्यपुष्टिविवर्धनम् ॥  
बृंहणीयमहृद्यं च मधूककुसुमं गुरु ।  
वातपित्तोपशमनं फलं तस्योपदिश्यते ॥ धन्वन्तरिनिघण्टु - आम्रादिवर्ग  
मधूको गुडपुष्पः स्यान्मधुपुष्पो मधुस्रवः ।  
वानप्रस्थो मधुष्ठीलो जलजेऽत्र मधूलकः ॥

मधूकपुष्पं मधुरं शीतलं गुरु बृंहणम् ।  
बलशुक्रकरं प्रोक्तं वातपित्तविनाशनम् ॥  
फलं शीतं गुरु स्वादु शुक्रलं वातपित्तनुत् ।  
अहृद्यं हन्ति तृष्णाऽस्रदाहश्वासक्षतक्षयान् ॥ भावप्रकाश - आम्रादिफलवर्ग  
मधूको मधुवृक्षः स्यात् मधुष्ठीलो मधुस्रवः ।  
गुडपुष्पो लोध्रपुष्पो वानप्रस्थश्च माधवः ॥  
मधुकं मधुरं शीतं पित्तदाहश्रमापहम् ।  
वातलं जन्तुदोषघ्नं वीर्यपुष्टिविवर्धनम् ॥ राजनिघण्टु - आम्रादिवर्ग  
मधूकसारो नस्येन भूतादिकफवातजित् ॥  
तस्य पुष्पमिहृद्यं च बृंहणं गुरु शीतलम् ।  
तत्पक्वं बृंहणं शीतं क्षतक्षयहरं गुरु ॥  
स्वादुपाकरसं स्निग्धं वातपित्तास्रपित्तजित् ।  
विष्टम्भकृदहृद्यं च दाहहृत्कफशुक्रकृत् ॥ सोढलनिघण्टु - आम्रादिवर्ग  
ḍholaphalastīkṣṇasāro madhuko guḍapuṣpakah |  
elāphalo madhuṣṭhīlo madhuko madhuro madhuḥ ||  
madhukoṣṭho rodhravṛkṣāgravavāsā mahādrumah |  
madhvāṅgonyo madhūla hrasvapuşpaphalasmṛtaḥ ||  
gaurasākhī nīravṛkṣo syājjalajo dīrghapatrakah |  
vānaprastho madhuṣṭhīlo hrasvapuşpaphalah smṛtaḥ ||

madhūkastuvarastikto vraṇānilakaphāpahaḥ |  
tatpuṣpaṃ madhuraṃ śītamahr̥dyaṃ br̥mhaṇaṃ guru ||  
snigdhaṃ vikāsi tikṣṇoṣṇaṃ tatphalaṃ guru śītaḥ |  
ahr̥dyaṃ śukralaṃ snigdhaṃ madhuraṃ rasapākayoḥ ||  
viṣṭambhi br̥mhaṇaṃ balyaṃ kaphakṛṇ mārutāpaham |  
hanti pittāsratr̥ddāhaśvāsakāsakṣatakṣayān ||  
pakvaṃ tu tatphalaṃ balyaṃ pittamārutanāśanam |  
kaṣāyaṃ svādu mādhūkaṃ tailaṃ pittakaphapraṇut ||  
kaiyadevanighaṇṭu - oṣadhivarga

madhūko madhuvṛkṣastu madhuṣṭhīlo madhusravaḥ |  
guḍapuṣpo lodhrapuṣpo vānaprastho'tha mādhaveḥ ||  
madhūkaṃ madhuraṃ śītaṃ pittadāhaśramāpaham |  
vātalaṃ na tu doṣaghnaṃ vīryapuṣṭivivardhanam ||  
br̥mhaṇīyamahr̥dyaṃ ca madhūkakusumaṃ guru |  
vātapittopaśamanaṃ phalaṃ tasyopadiśyate ||  
dhanvantarinighaṇṭu - āmrādivarga

madhūko guḍapuṣpaḥ syānmadhupuṣpo madhusravaḥ |  
vānaprastho madhuṣṭhīlo jalaje'tra madhūlakaḥ ||  
madhūkapuṣpaṃ madhuraṃ śītaḥ guru br̥mhaṇam |  
balaśukrakaraṃ proktaṃ vātapittavināśanam ||  
phalaṃ śītaṃ guru svādu śukralaṃ vātapittanut |  
ahr̥dyaṃ hanti tr̥ṣṇā'sradāhaśvāsakṣatakṣayān || bhāvaprakāśa  
- āmrādiphalavarga

madhūko madhuvṛkṣaḥ syāt madhuṣṭhīlo madhusravaḥ |  
guḍapuṣpo lodhrapuṣpo vānaprasthaśca mādhaveḥ ||  
madhukaṃ madhuraṃ śītaṃ pittadāhaśramāpaham |  
vātalaṃ jantudoṣaghnaṃ vīryapuṣṭivivardhanam ||  
rājanighaṇṭu - āmrādivarga

madhūkasāro nasyena bhūtādikaphavātajit ||  
tasya puṣpamiḥṛdyaṃ ca br̥mhaṇaṃ guru śītaḥ |  
tatpakvaṃ br̥mhaṇaṃ śītaṃ kṣataḥsayaharaṃ guru ||  
svādupākarasaṃ snigdhaṃ vātapittāśrapittajit |  
viṣṭambhakṛdahr̥dyaṃ ca dāhahr̥tkaphaśukrakṛt ||  
soḍhalanighaṇṭu - āmrādivarga

### **Uses as per Ayurveda:**

#### **Flowers of Mahua:**

Madhura - sweet

Sheeta - coolant

Ahrudya - not good for heart

Brumhana - nourishing, nutritious

Guru - heavy to digest

Snigdha - unctuous, oily

Vikasi - spreads quickly to all parts of body, loosens joints

#### **Butter tree fruits:**

Guru - heavy to digest

Sheetala - coolant

Ahrudya - not good for heart

Shukrala - improves sperm and semen quantity and quality

Snigdha - unctuous, oily

Vishtambhi - causes constipation

Brumhana - nourishing, nutritious

Kaphakrut - increases Kapha Dosha.

### **Fruit is Indicated in:**

Pittasra - Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Trushna - excessive thirst

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Shwasa - asthma and chronic respiratory disorders

Kasa - cough, cold

Kshata - injury, bleeding

Kshaya - depletion of body tissues, weight loss, tuberculosis

### **Ripe fruit of butter tree:**

Balya - improves strength and immunity,

Balances Pitta and Vata Dosha

### **Madhuka oil:**

Kashaya - astringent

Swadu - sweet taste

Balances Pitta and Kapha Dosha.



Madhuka is used for Nasya to treat  
Bhuta - psychiatric disorders, anti microbial  
Kapha and Vata disorders

**Usage in fermentation:**

Madhuka flowers are used as fermenting agent in many Asava and Arishta - fermented alcoholic liquid medicine preparations.

**Adverse effect:**

No adverse effect is reported after the normal use of Madhuka. It is best to avoid this herb during constipation and in high Kapha conditions.



**Formulations containing Madhuka:**

**Madhukasava:** Madhukasavam is an Ayurvedic medicine in liquid form. It is nourishing in nature and used in the treatment

of emaciation, after chronic disease, tiredness, bleeding diseases and skin diseases.

**Abhayarishta:** It is an ayurvedic medicine in liquid form used in the treatment of piles and constipation.

**Chandanasava:** An ayurvedic medicine in liquid form for the treatment of burning micturition, spermatorrhoea and burning sensation of the body.

**Nyagrodhadi churna:** It is an ayurvedic medicine in powder form given for the treatment of urinary disorders and diabetes.

**Lakshmanarishta:** It is an ayurvedic medicine in liquid form used in the treatment of gynecological disorders like menorrhagia, metrorrhagia, irregular periods and heavy periods.

**Pancha saara panaka:** Panchasara Panaka is a coolant fruit juice drink given in cases thirst, burning sensation of body and burning micturition.

**Stanyajanana rasayana:** Stanyajanana Rasayanam is an effective Ayurvedic medicine for post natal care. It helps to improve breast milk production. It also improves strength of mother.

### **Research articles about Madhuka longifolia:**

**Anti - hyperglycemic and Anti - oxidant activity:** The aim of the present study was to explore the antihyperglycemic and antioxidant potential of ethanolic bark extract of Madhuca

longifolia (ML) in healthy, glucose loaded and streptozotocin induced diabetic rats. The extract exhibited a dose dependent hypoglycemic activity in all three animal models as compared with the standard antidiabetic agent glibenclamide. The antioxidant activity of the bark was evaluated by free radical scavenging activity using 1, 1 - diphenyl - 2 - picrylhydrazil (DPPH), reducing power assay and superoxide scavenging activity.

**Anti - inflammatory action:** The ethanol extract and saponin mixture of *Madhuca longifolia* L. (Sapotaceae) were evaluated for anti - inflammatory activity using acute (carrageenan - induced inflammation), sub - acute (formaldehyde - induced inflammation), and chronic (cotton pellet granuloma) models of inflammation in rats. MLEE (*Madhuca longifolia* ethanol extract) at a dose level of 10 and 15 mg/kg and *Madhuca longifolia* saponin mixture (MLSM) at a dose level of 1.5 and 3 mg/kg significantly reduced the edema induced by carrageenan in acute model of inflammation, inhibiting both phases of inflammation.

**Classical categorization:**

Bhavaprakasha - Amradi phala varga

Dhanvantari Nighantu - Amradi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Amradi varga

Shodala Nighantu - Amradi varga

**Scientific classification**

Kingdom: Plantae

Order: Ericales

Family: Sapotaceae

Genus: Madhuca

Species: *M. longifolia*

## **50. Coconut Milk: How To Make? Health Benefits, Remedies**

**By Dr MS Krishnamurthy MD (Ayu), PhD**

Coconut milk is an instant energy booster. It is rich with carbohydrate, proteins and fats. Even though good number of difference of opinion is found among the dietitians and nutritionists Indians use coconut milk in various preparations especially in payasam/kheer, sweets etc.

### **How to prepare coconut milk? Indian method:**

#### **Method 1:**

Grate the coconut.

Collect the grated coconut powder.

Take it in a clean, thin cloth.

Squeeze it and collect milk in a clean vessel.

#### **Method 2:**

Grate the coconut. Or Chop coconut into small pieces.

Put it in a mixer. Grind it for 3 - 5 minutes.

Take out the paste and filter it.

Collect the coconut milk in a clean vessel.

### **Coconut milk medicinal qualities as per Ayurveda:**

Rasa (taste) - Madhura (sweet)

Guna (quality) - Snigdha (unctuous, oily) Guru (heavy), Manda (thick/slow), Sheeta (coolant), Sthira (stable)

Vipaka (bio transformation) - Madhura (sweet) - Undergoes sweet taste conversion after digestion

Veerya (potency) - Sheeta (cold, coolant)

Prabhava (special influence) - Rasayana (rejuvenative)

Effect on Tridosha - Balances Vata and Pitta Dosha, increases Kapha Dosha.

### **Therapeutic action -**

Balya (tonic), Vrishya (aphrodisiac),

Brimhana (nutritive),

Rasa - Mamsa - majja vardhaka - Increases muscles, rasa dhatu and majja dhatu.

Read related: [Coconut Shell Benefits, Usage In Cooking Hard Vegetables](#)

### **Coconut milk benefits:**

Relieves emaciation,

Vata Disorders (neuro - muscular disorders),

Mamsakshaya (muscular dystrophy),

Shukra kshaya (oligospermia),

Shirashoola (headache),

Katigraha (backache) etc

### **Coconut milk remedies:**

1. 1 cup of coconut milk is added with 1 teaspoon of jaggery and dissolved. This is added with 1 gram of cardamom and a strand of saffron. Mixed well.

This acts as instant energy booster and also a very good aphrodisiac drink.

This a very good coolant and it is served along with various dishes like Dosa, Idly, Rice noodles etc. This acts as a coolant and helps to induce good sleep among the people who often feel difficulty to get sleep. Avoid it in diabetic patients.

Regular intake during night helps to reduce the back ache; also it is beneficial in enhancing the libido and body weight.

### **Remedy 2:**

1 cup of coconut milk and

1 cup wheat milk (obtained by soaking the cleaned wheat in water for 3 - 4 hours, then squeezed in a thick cloth to extract milk) are taken and cooked well.

1 teaspoon of ghee and sugar (or jaggery) are added and heating is continued till it gets semisolid consistency like cake.

1 gram of each of cardamom, clove, cinnamom leaf and bark, 1 strand of saffron etc can be added.

This is a very nutritive recipe for growing children.

### **Remedy 3:**

50 ml coconut milk, 100 ml cow's ghee and 400 ml of coconut water are taken together and ghee is cooked in mild intensity of heat. When it is free of water content it is taken out of the fire and filtered. To this 50 gram of sugar is added in warm condition and mixed thoroughly.

This is administered in the dose of 5 gram daily along with warm water or warm milk.

This is effective in the treatment of backache, burning sensation while passing urine, urinary calculi, leucorrhoea, fatigue, urinary tract infection etc.



## **51. Bakula - Mimusops elengi: Benefits, Remedies, Research, Side Effects**

Bakula - Mimusops elengi is an Ayurvedic plant useful in the treatment of headache, toothache, diseases of the oral cavity, poisonous cases, diarrhea and more.

Latin name - Mimusops elengi Linn.

Family - Sapotaceae



### **Names in different languages:**

Hindi name - Moulasiri

English name - Spanish cherry, Medlar, Bullet wood

Kannada name - Bakulada hoovugalu

Bengali name - Bakul

Gujarathi name - Bolasari

Marathi name - Elaingi

Tamil name - Bagulam

Telugu name - Pogada chettu



**Sanskrit Synonyms:**

Chira puspa - The flowers remain fresh for a long duration

Madhugandha - The flowers have pleasant smell

Sthreemukha, Sthirakusuma, Sthirapushpa - The fragrance of the flower is retained even after it is dried

Seedhugandha, Madyadohada, Madyagandha - The smell of flower is intoxicating like alcohol

Sheershakesara, Kesara, Simha kesari - The flower is dense like mane of lion

Visharada, Shimbisimha, Gudhapushpa, Krishna Twagankura, Shiva - Auspicious



### **Morphology:**

*Mimusops **elengi*** is a medium - sized evergreen tree found in tropical forests in South Asia, Southeast Asia and northern Australia.

Spanish cherry is a large tree growing to a height of 12 - 15 m and is found all over India. The central wood of the tree is hard with reddish color. The flowers are pale yellow or white with pleasant smell. The fruit is found with 1 - 2 shining seeds within.



## **Mimusops elengi medicinal properties:**

Rasa (Taste) - Katu (Pungent), Kashaya (Astringent)

Guna (Qualities) - Guru (Heavy)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Pittakapha shamaka (reduces vitiated Pitta and kapha dosha)



**Part used** - Bark, Flower and Fruit

### **Dosage:**

Decoction of bark - 50 to 60 ml

Powder of flower - 1 to 2 g



### **Mimosa elengi chemical constituents:**

The leaves of the plant Bakula contain sterols, tannins and reducing sugars. The flower contains D - Mannitol, beta sitosterol and D - glycoside. The seed contain pentacyclic triterpene acids and mimusopic acid. The stem bark of the tree contains spinasterol and taraxerol.

### **Medicinal uses of Bakul - Bullet wood:**

- The powder of the dried flowers or the juice of fresh flowers of Bakula is administered through the nostrils (Nasya karma) to get relief from headache and sinusitis.
- The decoction prepared from the bark of the tree of Mimosa elengi is used for gargling to treat diseases

of the oral cavity like gingivitis, looseness of teeth, oral ulcers etc.

- The tender leaves of Bakula or the unripe fruit of the plant is chewed to treat bleeding from the gums and gingivitis.
- The cold infusion or decoction prepared from the bark of the stem is given in a dose of 40 - 50 ml to treat diarrhea and intestinal worms.
- The cold infusion of the bark of *Mimusops elengi* is given in a dose of 40 - 50 ml to treat dysmenorrhea and leucorrhea.
- The bark decoction is given in a dose of 30 - 40 ml to treat fever and general debility.
- In case of insect bites and other small animal bites, the paste of the bark and unripe fruit is applied over the local area to relieve the effect of poison.
- The cold infusion prepared from the dried flowers of the plant is given regularly in a dose of 40 - 50 ml to strengthen the cardiac muscles and is beneficial in persons suffering from weak cardiac muscles.
- The cold infusion or decoction of the flowers of *Mimusops elengi* acts like a general tonic.

बकुलः केसरः सिंहकेसरो मद्यदोहदः ॥

मधुगन्धो मद्यगन्धः सीधुगन्धो विशारदः ।

शिम्बीसिंहो गूढपुष्पः कृष्णत्वङ्गकुरः शिवः ॥

बकुलस्तुवरोऽनुष्णः कटुपाकरसो गुरुः ।

कफपित्तविषश्चित्रकृमिदन्तगदापहः ॥

तत्फलं मधुरं स्निग्धं कषायं विशदं हिमम् ।

कफपित्तहरं हृद्यं दन्त्यं सङ्ग्राहि वातलम् ॥ कैयदेवनिघण्टु -

ओषधिवर्ग

बकुलः सीधुगन्धश्च मद्यगन्धो विशारदः ।

मधुगन्धो गूढपुष्पः शीर्षकेसरकस्तथा ॥

बकुलोद्भवपुष्पं च सुपक्वं च सुगन्धि च ।

मधुरं च कषायं च स्निग्धं सङ्ग्राहि बाकुलम् ॥

स्थिरीकरं च दन्तानां विशदं तत्फलं गुरु । धन्वन्तरिनिघण्टु -

आम्रादिवर्ग

बकुलो मधुगन्धश्च सिंहकेसरकस्तथा ।

बकुलस्तुवरोऽनुष्णः कटुपाकरसो गुरुः ।

कफपित्तविषश्चित्रकृमिदन्तगदापहः ॥ भावप्रकाश - - पूर्वखण्ड

मिश्रप्रकरण - पुष्पवर्ग

बकुलस्तु सीधुगन्धः स्त्रीमुखमधुदोहलश्च मधुपुष्पः ।

सुरभिर्भ्रमरानन्दः स्थिरकुसुमः केसरश्च शारदिकः ॥

करकः सीधुसञ्जस्तु विशारदो गूढपुष्पको धन्वी ।

मदनो मद्यामोदश्चिरपुष्पश्चेति सप्तदशसञ्जः ॥

बकुलः शीतलो हृद्यो विषदोषविनाशनः ।

मधुरश्च कषायश्च मदाढ्यो हर्षदायकः ॥

बकुलकुसुमञ्च रुच्यं क्षीराढ्यं सुरभि शीतलं मधुरम् ।

स्निग्धकषायं कथितं मलसङ्ग्रहकारकं चैव ॥ राजनिघण्टु -

करवीरादिवर्ग

बकुलत्वक्कफातङ्करक्तहन्त्री दृढत्वकृत् ॥

पुष्पं कषायमधुरं शीतं पित्तकफास्रजित् ।

बकुलस्य फलं रुक्षं विशदं स्तम्भनं गुरु ॥

कषायं मधुरं शीतं लेखनं कफपित्तहृत् ।

दन्तदार्यकरं ग्राहि विबन्धाध्मानवातकृत् ॥

तद्वीजं दन्तवालघ्नं नस्याच्छीर्षरुजापहम् । सोढलनिघण्टु - आम्रादिवर्ग

bakulaḥ kesaraḥ śimhakesaro madyadohadaḥ ॥

madhugandho madyagandhaḥ sīdhugandho viśāradaḥ ।

śimbīsimho gūḍhapuṣpaḥ kṛṣṇatvaṅmakuraḥ śivaḥ ॥



bakulastuvaro'nuṣṇaḥ kaṭupākaraso guruḥ |  
 kaphapittaviṣaśvitrakṛmidantagadāpahaḥ ||  
 tatphalaṃ madhuraṃ snigdhaṃ kaṣāyaṃ viśadaṃ himam |  
 kaphapittaharaṃ hṛdyaṃ dantyaṃ saṅgrāhi vātaḥ ||  
 kaiyadevanighaṇṭu - oṣadhivarga  
 bakulaḥ sīdhugandhaśca madyagandho viśāradaḥ |  
 madhugandho gūḍhapuṣpaḥ śīrṣakesarakastathā ||  
 bakulodbhavapuṣpaṃ ca supakvaṃ ca sugandhi ca |  
 madhuraṃ ca kaṣāyaṃ ca snigdhaṃ saṅgrāhi bākulaḥ ||  
 sthīrikaraṃ ca dantānāṃ viśadaṃ tatphalaṃ guru |  
 dhanvantarinighaṇṭu - āmrādivarga  
 bakulo madhugandhaśca śīrṣakesarakastathā |  
 bakulastuvaro'nuṣṇaḥ kaṭupākaraso guruḥ |  
 kaphapittaviṣaśvitrakṛmidantagadāpahaḥ || bhāvaprakāśa -  
 pūrvakhaṇḍa - miśraprakaraṇa - puṣpavarga  
 bakulastu sīdhugandhaḥ strīmukhamadhudohalaśca  
 madhupuṣpaḥ |  
 surabhirbhramarānandaḥ sthīrakusumaḥ kesaraśca śārādikaḥ ||  
 karakaḥ sīdhusañjñastu viśārado gūḍhapuṣpako dhanvī |  
 madano madyāmodaścirapuṣpaśceti saptadaśasañjñāḥ ||  
 bakulaḥ śītaḥ hṛdyo viśadoṣavināśanaḥ |  
 madhuraśca kaṣāyaśca madāḍhyo harṣadāyakaḥ ||  
 bakulakusumañca rucyaṃ kṣīrāḍhyaṃ surabhi śītaḥ  
 madhuraḥ |

snigdhaḥkaṣāyaṃ kathitaṃ malasaṅgrahakāraḥ caiva ||  
rājanighaṇṭu - karavīrādivarga  
bakulatvakkaphātaṅkaraktahantrī dr̥ḍhatvakṛt ||  
puṣpaṃ kaṣāyamadhuraṃ śītaṃ pittakaphāsrajit |  
bakulasya phalaṃ rūkṣaṃ viśadaṃ stambhanaṃ guru ||  
kaṣāyaṃ madhuraṃ śītaṃ lekhaṇaṃ kaphapittahṛt |  
dantadār̥ḍhyakaraṃ grāhi vibandhādhmānavātakṛt ||  
tadbījaṃ dantavālaghnaṃ nasyācchīrṣarujāpaham |  
soḍhalanighaṇṭu - āmrādivarga

### **Bakula uses as per Traditional Ayurveda:**

Indicated in -

Visha - Toxic conditions, poisoning

Shvitra - leucoderma, vitiligo

Krumi - worm infestation

Dantaroga - tooth decay

### **Bullet wood fruit -**

Madhura - sweet

Snigdha - unctuous, oily

kashaya - astringent,

Vishada - clarity, non slimy

Hima - coolant

kaphapittahara - Balances Kapha and Pitta Dosha

Hrudya - acts as cardiac tonic, congenial for heart

Dantya - good for teeth

Sangrahi - absorbent, useful in diarrhea, IBS

Vatala - increases Vata Dosha

Guru - heavy to digest

### **Bakul seeds:**

Powder nasya is useful in the treatment fo shiroroga -  
headachne and other disorders of head.

**Adverse effect of Bakula:** No adverse effect is seen after the normal use of the herb Bakula. However prolonged exposure or intake of its flowers may cause mild intoxicating effect in some individuals.

### **Ayurvedic medicines containing Bakula:**

**Baladhatryadi taila:** It is an Ayurvedic oil, used in Ayurvedic treatment of headache, eye disorders, burning sensation in eyes, head, gout arthritis. It is used for external application and oral intake.

**Varishoshana rasa:** It is an Ayurvedic medicine in tablet or powder form. It is used in the treatment of splenomegaly, anemia, abdominal colic etc.

**Geecare powder:** It is a proprietary Ayurvedic medicine used for complete oral cavity protection.

### **Research articles about Mimusops elengi:**

**Anti - bacterial action:** The extracts of Mimusops elengi L. (family: Sapotaceae) bark, fruit and seed were evaluated for

antibacterial activity by using spectrophotometric method against gram positive and gram negative strains viz. *Nocardia asteroides* NRRL 174, *Micrococcus luteus* ATCC 10240, *Bacillus subtilis* PCSIRB 248, *Bacillus licheniformis* NCL 2024, *Proteus mirabilis* ATCC 29425 and *Salmonella typhimurium* ATCC 14028. The fruit and seed extracts were found inactive, while stem bark extracts showed antibacterial activity against all 6 bacterium.

**Anti - anxiety action:** The present study evaluates the anti - anxiety activity of methanolic, aqueous and n - butanol extract of bark of *Mimusops elengi* using elevated plus maze in swiss albino mice. Methanol extract at 50,100 and 200 mg/kg, aqueous extract at 100 and 200 while n - butanol extract at 200 mg/kg in mice were active but methanolic extract at 200 mg/kg was found to have more significant anxiolytic activity as compared to aqueous and n - butanol extract.

**Anti - diabetic activity:** The effect of the bark of the tree showed significant anti - ulcer action in the gastrointestinal area.

**Anti - urolithiatic and anti - oxidant action:** Petroleum ether, chloroform, and alcohol extracts of *Mimusops elengi* bark were evaluated for antiurolithiatic and antioxidant activity in male albino Wistar rats. All the extracts of *M. elengi* were safe orally and exhibited no gross behavioral changes in the rats. In

hypercalcaemic animals, the oxalate, calcium, and phosphate excretion grossly increased. However, the increased deposition of stone forming constituents in the kidneys of calculogenic rats were significantly ( $P < 0.001$ ) lowered by curative and preventive treatment with alcohol extract (AIE) of *M. elengi*. It was also observed that alcoholic extract of *M. elengi* produced significant ( $P < 0.001$ ) decrease in MDA, and increased GSH, SOD, and CAT. These results confirm that AIE of *M. elengi* possess potent antiurolithiatic activity.

### **Classical categorization of Bakula:**

Bhavaprakasha - Pushpa varga - flower bearing group of herbs

Dhanvantari Nighantu - Amradi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Karaveeradi varga

Shodala Nighantu - Amradi varga

### **Scientific classification**

Kingdom: Plantae

Order: Ericales

Family: Sapotaceae

Genus: *Mimusops*

Species: *M. elengi*

## **52. Parijatha Nyctanthes arbor - tristis: Benefits, Remedies, Research, Side Effects**

Parijatha - Nyctanthes arbor - tristis is a plant mentioned in the ayurvedic pharmacopoeia for the treatment of alopecia, sciatica, constipation, piles, intestinal worms and poisoning.

Latin name - Nyctanthes arbor - tristis Linn.

Family - Oleaceae

### **Names in different languages:**

Hindi name - Har singar

English name - Night jasmine or Coral jasmine

Bengali name - Shefalika, Shivuli

Guajarati name - Harshanagar

Kannada name - Parijatha

Marathi name - Parijath

Telugu name - Parijatamu

Tamil name - Majjapu



**Sanskrit synonyms -**

Vatari - Reduces vata dosha

Shuklangi - The flowers are white colored

Sephalika, Shefalika, Aparajitha, Vijaya



**Morphology:**

Parijatha is a big shrub or small tree growing to a height of 20 - 25 feet and found all over India. The leaves have small hairs on

the underside. The flowers are fragrant, with a five - to eight - lobed white corolla with an orange - red center; they are produced in clusters of two to seven together, with individual flowers opening at dusk and finishing at dawn. The fruit is a flat brown heart - shaped to round capsule 2 cm diameter, with two sections each containing a single seed. The flowers are seen immediately after the rainy season and the fruits are seen in the spring.



**Night - flowering Jasmine: medicinal properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)



**Part used** - Leaf, Bark

**Dosage** -

Powder: 1 - 3 g

Fresh juice - 10 - 20 ml



**Nyctanthes arbor - tristis chemical constituents:**

The seeds and the leaves contain iridoid glycosides. The leaf contains mannitol, beta - amyryl, beta - sitosterol, hentriacontane, benzoic acid, astragalol, nicotiflorin, oleanolic acid, nyctanthic acid, friedelin and lupeol. The seeds of the plant contain a polysaccharide glucomannan.

**Medicinal uses of Uses of Parijata - Nyctanthes arbor - tristis:**

- The paste of the seeds is applied over the area affected with alopecia.

- The fresh juice of the leaf of Nyctanthes arbor - tristis is given in a dose of 5 - 10 ml to treat sciatica.
- The fresh juice of the plant is given in cases of constipation, intestinal worms, hepatomegaly and piles in a dose of 10 - 15 ml.
- In cases of asthma and cough, the powder of dried leaf or bark of Nyctanthes arbor - tristis is given with betel leaf juice in a dose of 2 - 3 g.
- The paste of the bark or leaf is applied over the area affected with eczema and ringworm.
- In cases of snake poisoning, the juice of the leaf is administered.
- The cold infusion of the leaf is given to treat difficulty in micturition.
- The flowers are used to prepare perfumes and scents after distillation.

शेफालिका तु सुवहा शुक्लाङ्गी शीतमञ्जरी प्रोक्ता ।

अपराजिता च विजया वातारिर्भूतकेशी च ॥

शेफालिः कटुतिक्तोष्णा रूक्षा वातक्षयापहा ।

स्यादङ्गसन्धिवातघ्नी गुदवातादिदोषनुत् ॥ रा.नि.

śephālikā tu suvahā śuklāṅgī śītamañjarī proktā |

aparājitā ca vijayā vātārirbhūtakeśī ca ||  
śephāliḥ kaṭutiktoṣṇā rūkṣā vātakṣayāpahā |  
syādaṅgasandhivātaghnī gudavātādidoṣanut || rā.ni.

### **Parjiatha for Nipah virus:**

There are many rumored benefits of Parijata in curing Nipah virus. It is useful in reducing the symptoms of Nipah virus infection. But a complete cure just with it cannot be guaranteed.

**Adverse effects:** No known adverse effect is known or reported by the normal use of Parijatha.

### **Ayurvedic medicines containing Parijatha as ingredient:**

**Manasamitra vatakam:** Manasamitra Vatakam is a tablet, used in Ayurvedic treatment of psychiatric conditions, to improve intelligence, speech problems, used in children to improve brain functions, memory and concentration, in diseases like autism. It is also used to treat epilepsy, seizures and mania.

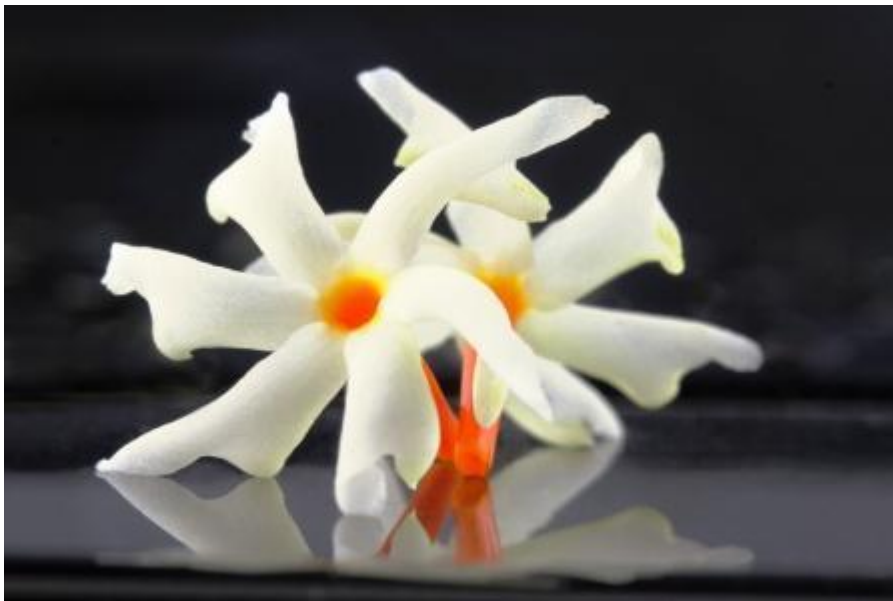
**Bala taila:** Bala Tel is Ayurvedic oil, used in Ayurvedic treatment of Vata diseases, bloating, wound, emaciation, spleen diseases, epilepsy, asthma, vomiting, cough, cold, asthma, wound, emaciation etc. It is used both externally and orally.

**Arthrella ointment:** Arthrella Ointment is a proprietary Ayurvedic medicine used in the treatment of rheumatic

disorders. It is a potent anti - inflammatory and analgesic formulation.

**Step capsule:** Step Capsule is a proprietary Ayurvedic medicine used against respiratory tract infections.

**Ashwagandharishta:** It is a liquid formulation useful against general debility, piles, low digestive power, loss of memory etc.



### **Research articles about Nyctanthes arbor - tristis:**

**Anti - inflammatory and Anti - oxidant activity:** Anti - inflammatory and Antioxidant properties of Nyctanthes arbor - tristis L. (Oleaceae) seeds extracted with Hexane, ethyl acetate and methanol revealed that ethyl acetate (Ny - EI) extract showed potent effect than hexane and methanol extracts. The total phenolic content of Ny - EI extract was  $206.81 \pm 1.11$  mg of catechol equivalents/g extract. Ny - EI extract showed great scavenging activity on 2, 2 - diphenyl - picrylhydrazyl (DPPH) ( $IC_{50} 459.91 \pm 1.40 \mu\text{g/mL}$ ), hydroxyl ( $IC_{50} 363.32 \pm 1.58$

µg/mL), nitric oxide (IC<sub>50</sub> 545.03 ± 1.69 µg/mL) and superoxide (IC<sub>50</sub> 338.82 ± 1.72 µg/mL) radicals, as well as had high reducing power.

**Anti - arthritic action:** The plant was evaluated for acute toxicity studies at two different dose levels and it did not show any toxic or deleterious effects indicating low toxicity of the extracts even at high doses. In gouty arthritis a significant reduction in legged gait was observed as compared to control group whereas in poly arthritis model complete control was noticed in injected as well as uninjected paw.

**Hepato protective action:** The aim of the present study was to evaluate the alcoholic and aqueous extracts of the leaves of *Nyctanthes arbor - tristis* for hepatoprotective effect against carbontetrachloride - induced liver damage in rats.

Administration of alcoholic and aqueous extracts of the leaves of *Nyctanthes arbor - tristis* protect the liver from toxic effects of carbontetrachloride by reducing the elevated levels of Serum glutamate pyruvate transaminase, Serum glutamate oxaloacetate transaminase and serum bilirubin (total and direct). Results revealed that both the alcoholic and aqueous extracts showed significant hepatoprotective activity by reducing the elevated levels of biochemical parameters at a dose of 500 mg/kg body weight.

**Classical categorization:**

Raja Nighantu - Shatahvadi varga

**Scientific classification**

Kingdom: Plantae

Order: Lamiales

Family: Oleaceae

Genus: Nyctanthes

Species: N. arbor - tristis

### **53. Jasmine - Chameli: Benefits, Remedies, Research, Side Effects**

Jati - *Jasminum grandiflorum* is an Ayurvedic medicinal plant, used for the treatment of wounds, skin diseases, ulcers of the oral cavity, gingivitis, headache, erectile dysfunction and eye diseases.

Latin name - *Jasminum grandiflorum* Linn.

*Jasminum sambac* and *Jasminum officinale* are also used in the name of Jati.

Family - Oleaceae

#### **Names in different languages:**

Hindi name - Chameli

English name - Spanish or Common Jasmine

Arabic name - Yasmin

Bengali name - Chameli

Gujarathi name - Chabeli

Kannada name - Mallige

Parsi name - Saman

Tamil name - Malligai

Telugu name - Jai puvvu



**s Synonyms:**

Hrudya gandha - The fragrance pleases the heart

Manojna, Sumana/ Cetika - The fragrance refreshes the mind

Ratripushpa/Sandhyapushpi - The flowers bloom during night

Malati, Rajaputri, Surapriya, Jati, Priyamvada, Chetika,

Tailabhavini, Surapriya,

**Morphology of Common jasmine:**

Jati is a small plant growing naturally and cultivated all over India, in the temperate climate, for its flowers. The leaves are dark green in color. The flowers are white having fragrance and bloom in the rainy season. *Jasminum officinale* is also used as synonym Latin name for Jati.





**Jasminum grandiflorum medicinal properties:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Snigdha (Slimy)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Tridosahara (Reduces all the three dosha)

**Part used** - Leaf, Flower, Root

**Dosage -**

Powder of dried leaf - 5 to 10g

Fresh juice of flower - 5 to 10 ml

Decoction - 50 to 70 ml

**Jasminum grandiflorum chemical constituents:**

The leaf of the plant contains ascorbic acid, anthranilic acid and its glucoside, indole oxygenase, alkaloid jasminine and salicylic acid. The flowers contain pyridine and nicotinate derivatives.

The oil extracted from the plant yield benzyl acetate, benzyl

benzoate, phytol, methyl jasmonate, linalool, geranyl linalool and isophytol.

### **Medicinal uses of Chameli - Jati:**

- The paste of the root of jasmine plant is applied as face pack to improve the complexion.
- The fresh, tender leaf of the plant is chewed to relieve pain due to dental caries, mouth ulcers and in weak gums.
- The decoction of the leaf is used for gargling in cases of gingivitis and mouth ulcers.
- The paste of the root of jasmine plant is applied over forehead to relieve headache.
- The oil prepared from the root is applied over the affected area in sciatica, facial paralysis and general debility.
- The oil prepared from the root and flowers of the plant is applied over the scalp in cases of dizziness, vertigo and headache.
- Few drops of oil prepared using the leaf of jasmine plant is poured inside the ear to relieve earache and pus discharge from the ears.

- The paste of the leaf, root and flower is applied over the affected area of skin diseases like scabies and itching.
- The oil prepared using the leaf of jasmine plant is applied over the area affected with open wound to heal it.
- The fresh juice of the flowers is dropped into the eyes to treat conjunctivitis and other eye disorders.
- The paste of the root of the plant is applied over the bladder area to relieve difficulty in micturition and dysmenorrhea.
- The paste prepared from the root of the plant is applied over the penile region in cases of erectile dysfunction.
- The cold infusion prepared from the flowers of jasmine is given in a dose of 40 - 50 ml to treat fever.
- The perfume of the flowers obtained through distillation method is commercially used.

मालती सुमना जाती हृद्यगन्धा प्रियंवदा ।

राजपुत्री रात्रिपुष्पी चेतिका तैलभाविनी ॥

मालती तुवरा तिका कटूष्णा दोषनाशिनी ।

शिरोऽक्षिमुखदन्तातिविषकुष्ठव्रणास्रजित् ॥ कैयदेवनिघण्टु - ओषधिवर्ग

जाती मनोज्ञा सुमना राजपुत्री प्रियंवदा ।

मालती हृद्यगन्धा च चेतिका तैलभाविनी ॥

मालती कफपितास्यरुक्पाकव्रणकुष्ठजित् ।

चक्षुष्यो मुकुलस्तस्यास्तत्पुष्पं कफपित्तजित् ।

सुगन्धि च मनोज्ञं च सर्वश्रेष्ठतमं मतम् ॥ धन्वन्तरिनिघण्टु - आम्रादिवर्ग

जातिर्जाती च सुमना मालती राजपुत्रिका ।

चेतिका हृद्यगन्धा च सा पीता स्वर्णजातिका ॥

जातीयुगं तिक्तमुष्णं तुवरं लघु दोषजित् ।

शिरोक्षिमुखदन्तार्तिविषकुष्ठानिलास्रजित् ॥ भावप्रकाश - मिश्रप्रकरण -

पुष्पवर्ग

जाती सुरभिगन्धा स्यात् सुमना तु सुरप्रिया ।

चेतकी सुकुमारा तु सन्ध्यापुष्पी मनोहरा ॥

राजपुत्री मनोज्ञा च मालती तैलभाविनी ।

जनेष्टा हृद्यगन्धा च नामान्यस्याश्चतुर्दश ॥

मालती शीतलिका स्यात् कफघ्नी मुखपाकनुत् ।

कुङ्मलं नेत्ररोगघ्नं व्रणविस्फोटकुष्ठनुत् ॥ राजनिघण्टु - करवीरादिवर्ग

मालती कफपितास्रत्वग्दोषकृमिकुष्ठनुत् ॥

वामनी व्रणशातघ्नी पूतिकर्णास्यपाकहृत् । सोढलनिघण्टु - आम्रादिवर्ग

mālatī sumanā jātī hr̥dyagandhā priyaṃvadā |

rājaputrī rātripuṣpī cetikā tailabhāvinī ||

mālatī tuvarā tiktā kaṭūṣṇā doṣanāśinī |

śiro'kṣimukhadantāttiviṣakuṣṭhavraṇāsrajit ||

kaiyadevanighaṇṭu - oṣadhivarga

jātī manojñā sumanā rājaputrī priyaṃvadā |

mālatī hr̥dyagandhā ca cetikā tailabhāvinī ||

mālatī kaphapittāsyarukpākavraṇakuṣṭhajit |

cakṣuṣyo mukulastasyāstatpuṣpaṃ kaphapittajit |

sugandhi ca manojñā ca sarvaśreṣṭhatamaṃ matam ||

dhanvantarinighaṇṭu - āmrādivarga

jātirjātī ca sumanā mālatī rājaputrikā |

cetikā hr̥dyagandhā ca sā pītā svarṇajātikā ||

jātiyugaṃ tiktamuṣṇaṃ tuvaraṃ laghu doṣajit |

śirokṣimukhadantārtiviṣakuṣṭhānilāsrajit || bhāvaprakāśa -

miśraprakaraṇa - puṣpavarga

jātī surabhigandhā syāt sumanā tu surapriyā |

cetakī sukumārā tu sandhyāpuṣpī manoharā ||

rājaputrī manojñā ca mālatī tailabhāvinī |

janeṣṭhā hr̥dyagandhā ca nāmānyasyāścaturdaśa ||

mālatī śītatiktā syāt kaphaghñī mukhapākanut |  
kuḍmalaṃ netrarogaghnaṃ vraṇavisphoṭakuṣṭhanut ||  
rājanighaṇṭu - karavīrādivarga  
mālatī kaphapittāsratvagdoṣakṛmikuṣṭhanut ||  
vāmanī vraṇaśātaghñī pūtikarṇāsyapākahr̥t | soḍhalanighaṇṭu -  
āmrādivarga

### **Ayurvedic indications:**

Shiroroga - diseases of head, headache

Akshiroga - eye disorders

Mukharoga - oral disorders

Dantaroga - teeth disorders

Visha - Toxic conditions, poisoning

Kushta - skin diseases

Vrana - Ulcers, wounds

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Visphota - boils, blisters

Asyapaka - mouth ulcers

Putikarna - pus discharge in ears

### **Flower**

Balances Kapha and Pitta Dosha

**Adverse effect:** No known adverse effect is reported after the use of jasmine plant. Some cases of allergy towards the fragrance of the perfume of jasmine flower is known.

### **Ayurvedic medicines containing Jati:**

**Velwak cream:** Velwak Topical is a proprietary Ayurvedic medicine useful in treating cracked heels. It softens the skin by facilitating desquamation of dead cells, assists healing and reduces the associated pain.

**Cardiraksh capsules:** It is a proprietary Ayurvedic medicine to control hypertension, relieves stress and strain.

**Kalyanaka kashaya choorna:** It is a medicine in powder form useful to treat anemia, itching, intoxication, schizophrenia and anxiety. It is also indicated in infertility, loss of memory, amenorrhoea and fever.

**Malatyadi taila:** Malatyadi Tailam is an effective Ayurveda herbal oil for hair care. It is useful in Alopecia, hair fall and dandruff problem.

**Trichoderm ointment:** Trichoderm Topical is a proprietary Ayurvedic medicine useful as anti - fungal remedy for superficial fungal infections.

**Paranthyadi taila:** It is an herbal medicine, used mainly in the treatment of dermatitis, spider bite, pruritis, skin disorders etc.

Colicarmin drops: Colicarmin Syrup is a proprietary ayurvedic medicine useful to treat digestive disorders and acts as carminative.

Vasanth kusumakara rasa: Vasant Kusumakar Ras is an Ayurvedic medicine in tablet or powder form, used in treatment of diabetes, diseases related to urinary tract, memory loss etc.

Jatyadi ghrita: Jatyadi Ghrita is an Ayurvedic medicine, in herbal ghee form. This medicine is used for external application only. It is used externally in the treatment of deep seated wounds and ulcers, non - healing wound with secretions.

### **Research articles about Jasminum grandiflorum:**

Anti - bacterial action: The extracts were subjected for screening of in - vitro antimicrobial activity against selected disease causing pathogens, viz., Staphylococcus albus, Proteus mirabilis, Salmonella typhii, etc., at concentrations of 500mg/ml, 250mg/ml. The results of antimicrobial activity revealed that all the extracts showed comparatively better activity than other extracts. They can be used as anti - biotic.

Anti - fungal action: The present study aims to evaluate the antifungal activity of J. sambac or Arabian jasmine, a flowering plant abundant in the Southeast Asia against Malassezia sp. using disc diffusion and broth micro dilution method. Skin samples from individuals with dandruff were cultured on Sabouraud dextrose agar overlaid with olive oil. The inhibition



zones of methanol extract of flowers and leaves of J. sambac and essential oil of flowers showed potential for antifungal activity with inhibition zones of  $11.10 \pm 1.92$ ,  $12.90 \pm 1.68$ , and  $13.06 \pm 0.26$  mm, respectively, and minimum inhibitory concentration (MIC) values of 80 mg/mL to 160 mg/mL and 50%, respectively.

**Jati - Classical categorization:**

Charaka - Kushtagna - skin disease relieving group of herbs

Bhavaprakasha - Pushpa varga

Dhanvantari Nighantu - Amradi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Karaveeradi varga

Shodala Nighantu - Amradi varga

**Scientific classification**

Kingdom: Plantae

Order: Lamiales

Family: Oleaceae

Genus: Jasminum

Species: J. grandiflorum

## **54. Yuthika *Jasminum auriculatum*: Benefits, Remedies, Research, Side Effects**

Yutika (Juhi) - *Jasminum auriculatum* is a herb mentioned in Ayurveda for the treatment of burning micturition, treatment of wounds, diseases of the oral cavity, headaches and poison cases.

Latin name - *Jasminum auriculatum* Vahl.

Family - Oleaceae

### **Names in different languages:**

Hindi name - Juhi

English name - Jasmine

Kannada name - Mallige

Tamil name - Malligai

Telugu name - Malle puvvu



### **Synonyms:**

Sumana - The flowers relax the mind

Vasanthi - The flower Blooms in the vasantha season  
Punyagandha, Jati, Yuthika, Bala, Balapushpa, Gunojwala,  
Kandi, Charumoda, Shikhandini, Pushpagandha,

**2nd type, yellow flower (Kaiyadeva Nighantu):**

Swarnayuthika, Peetika, Peeta Yuthika, Hemapushpi,  
Peetapushpi

**Morphology:**

Yutika is a plant cultivated all over India especially in Uttar Pradesh and Tamil Nadu for the commercial use of the flowers. The flowers are white in color giving good, pleasant fragrance.



**Properties:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Pitta shamaka (reduces the vitiated Pitta dosha)

**Part used** - Root

**Dosage** - Decoction - 50 to 70 ml

**Chemical constituents:**

The leaf of the plant contains lupeol, hentriacontane and n - tricantanol, jasminol, d - mannitol and jasmine. The flower buds contains indole, benzyl acetate and methyl anthranilate.

**Uses of Yutika:**

- The decoction prepared from the roots of *Jasminum auriculatum* is given in a dose of 50 - 60 ml to treat burning micturition and renal calculi.
- The paste prepared from the root and leaf of the plant is applied locally over the wound to treat it.
- The cold infusion of the roots and leaf is used for gargling in the diseases of the oral cavity, looseness of the gums.
- The paste of the root of the plant is applied over the forehead to relieve headache and burning sensation of the eyes.
- The perfume extracted from the flowers is used commercially.

यूथिका पीतिका बाला बालपुष्पा गुणोज्वला ।

काण्डी शिखण्डिनी चान्या वसन्ती पीतयूथिका ॥

पुष्पगन्धा चाहरिणी हारिणी स्वर्णयूथिका ।

हेमपुष्पी पीतपुष्पी त्वपरा शङ्खपुष्पिका ॥

शिखण्डी गणाकाऽम्बुषा जालमोटा च पाण्डुरा ।

यूथिका शीतला तिका कटुपाका कटुर्लघुः ॥

तुवरा मधुरा हृद्या पित्तघ्नी कफवातला ।

व्रणास्रमुखदन्ताक्षिशिरोरोगविषापहा ॥ कैयदेवनिघण्टु - ओषधिवर्ग

यूथिका बालपुष्पा तु बहुगन्धा गुणोज्वला ।

गणिका चारुमोदा च शिखण्डी स्वर्णयूथिका ॥

सुवर्णयूथा हरिणी पीतिका पीतयूथिका ।

प्रोक्ताऽन्या शङ्खधवला नामतः शङ्खयूथिका ॥

यूथिकायुगलं स्वादु शर्कराघ्नं सुगन्धि च । धन्वन्तरिनिघण्टु -

आम्नादिवर्ग

यूथिका गणिकाम्बुषा सा पीता हेमपुष्पिका ।

यूथीयुगं हिमं तिकं कटुपाकरसं लघु ।

मधुरं तुवरं हृद्यं पित्तघ्नं कफवातलम् ।

व्रणास्रमुखदन्ताक्षिशिरोरोगविषापहम् ॥ भावप्रकाश - पूर्वखण्ड - पुष्पवर्ग

यूथिकायुगलं स्वादु शिशिरं शर्करार्तिनुत् ।

पित्तदाहतृषाहारि नानात्वग्दोषनाशनम् ॥

सितपीतनीलमेचकनाम्न्याः कुसुमेन यूथिकाः कथिताः ।

तिक्तहिमपित्तकफामयज्वरघ्न्यो व्रणादिदोषहराः ॥

सर्वासां यूथिकानां तु रसवीर्यादिसाम्यता ।

सुरूपं तु सुगन्धाढ्यं स्वर्णयूथ्या विशेषतः ॥ राजनिघण्टु - करवीरादिवर्ग

रक्तातिसारहृच्छीतं पुष्पं तिक्तं कफापहम् ॥

बन्धूकं श्लेष्मलं ग्राहि तद्वदेव च यूथिका । सोढलनिघण्टु - आम्नादिवर्ग

yūthikā pītikā bālā bālapuṣpā guṇojvalā |

kāṇḍī śikhaṇḍinī cānyā vasantī pītayūthikā ||

puṣpagandhā cāharinī hāriṇī svarṇayūthikā |

hemapuṣpī pītapuṣpī tvaparā śaṅkhapuṣpikā ||

śikhaṇḍī gaṇākā'mbaṣṭhā jālamoṭā ca pāṇḍurā |

yūthikā śītalā tiktā kaṭupākā kaṭurlaghuḥ ||

tuvarā madhurā hr̥dyā pittaghnī kaphavātalā |

vraṇāsramukhadantākṣiśīrorogaviṣāpahā || kaiyadevanighaṇṭu

- oṣadhivarga

yūthikā bālapuṣpā tu bahugandhā guṇojvalā |

gaṇikā cārumodā ca śikhaṇḍī svarṇayūthikā ||

suvarṇayūthā hariṇī pītikā pītayūthikā |

proktā'nyā śaṅkhadhavalā nāmataḥ śaṅkhayūthikā ||

yūthikāyugalaṃ svādu śarkarāghnaṃ sugandhi ca |  
dhanvantarinighaṇṭu - āmrādivarga  
yūthikā gaṇikāmbaṣṭhā sā pītā hemaṇṣpikā |  
yūthīyugaṃ himaṃ tiktāṃ kaṭupākarasaṃ laghu |  
madhuraṃ tuvaraṃ hr̥dyāṃ pittaghnaṃ kaphavāṭalam |  
vraṇāsramukhadantākṣīrorogaviṣāpaham || bhāvaprakāśa -  
pūrvakhaṇḍa - puṣpavarga  
yūthikāyugalaṃ svādu śīśiraṃ śarkarārtinut |  
pittadāhatṛṣāhāri nānātvagdoṣanāśanam ||  
sitapītanīlamecakanāmnyāḥ kusumena yūthikāḥ kathitāḥ |  
tiktaḥimāpittakaphāmayajvaraghnyo vraṇādidoṣaharāḥ ||  
sarvāsāṃ yūthikānāṃ tu rasavīryādisāmyatā |  
surūpaṃ tu sugandhādhyāṃ svarṇayūthyā viśeṣataḥ ||  
rājanighaṇṭu - karavīrādivarga  
raktātisārahṛcchītaṃ puṣpaṃ tiktāṃ kaphāpaham ||  
bandhūkaṃ śleṣmalaṃ grāhi tadvadeva ca yūthikā |  
soḍhalanighaṇṭu - āmrādivarga

Hrudya - acts as cardiac tonic, congenial for heart

**Indications as per Ayurveda:**

Vrana - Ulcers, wounds

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Mukharoga - oral disorders

Dantaroga - teeth disorders

Akshiroga - eye disorders

Visha - Toxic conditions, poisoning

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Trushna - excessive thirst

**Adverse effect:** No adverse effect is known or reported after the use of Yuthika.

**Research articles about Jasminum auriculatum:**

**Anti - lithiatic effect:** The effect of oral administration of aqueous and alcohol extracts of *Jasminum auriculatum* Vahl (Oleaceae) flowers on calcium oxalate nephrolithiasis has been studied in male albino rats. The increased deposition of stone forming constituents in the kidneys of calculogenic rats was significantly lowered by curative and preventive treatment using aqueous and alcohol extracts. The results indicate that the flowers of *J. auriculatum* are endowed with anti - urolithiatic activity.

**Classical categorization:**

Dhanvantari Nighantu - Amradi varga

Bhavaprakasha - Pushpa varga

Kaiyyadeva Nighantu - Oushadhi varga



Raja Nighantu - Karaveeradi varga

Shodala Nighantu - Amradi varga

## **55. Tintideeka: Rhus parviflora: Benefits, Remedies, Research, Side Effects**

Tintidika - Rhus parviflora is a herb mentioned in the ayurvedic pharmacopoeia for the treatment of thirst, lack of appetite, diarrhea, increased micturition and diseases of the cardiac muscles.

Latin name - Rhus parviflora Roxb.

Family - Anacardiaceae

### **Names in different languages:**

Hindi name - Samakdana, Samakdan

English name - Sumac

Punjabi name - Khatte Masoor

Unani name - Posth Sumac

Marathi name - Samaka Kadana

Nepali name - Satibair

Kashmiri name - Samak

### **Sanskrit Synonym:**

Amlika - The fruit is sour in nature

Sinchamla, Amlantaki, Bitā, Shukta, Shuktika, Chanda,

Chukrika, Stambhainika, Tintrini, Sutittidi,

Dantashata - due to sourness, produces tingling sensation in teeth

### **Morphology:**

Tintidika is a small tree growing to a height of 12 - 15 feet. It is

found in the foothills of Himalaya and South India. The flower grows in clusters with reddish flowers. The fruits are small, little flat and are found in the month of May - August.

**Rhus parviflora medicinal properties:**

Rasa (Taste) - Amla (Sour)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Veerya (Potency) - Ushna (Hot)

Vipaka - Amla (Undergoes sour taste after digestion)

Karma (Actions) - Vata shamaka (reduces vitiated vata dosha), Kapha Pitta vardaka (increase kapha and pitta dosha)

**Part used** - Fruit

**Dosage** - 3 - 6 g

**Chemical constituents:**

The leaves contain the flavonoids, myricetin, quercetin and kaempferol and their 3 - O - rhamnosides; the stems and leaves also gave hentriacontane, hentriacontanol, beta - sitosterol, ligno - ceric acid and iso - rhamnetin - 3 - alpha - L - arvinoside.

Bhavaprakasha has identified Amlika and Vrukshamla has Tintideeka

**Uses of Tintidika:**

- The paste prepared from the dried bark of Rhus parviflora is used as local applicant over forehead to treat sinusitis.
- The cold infusion prepared from the bark and fruit of the plant is used for gargling in gingivitis and looseness of the tooth.
- The decoction prepared from the bark of the plant is given in a dose of 40 - 50 ml to treat excessive micturition.
- The cold infusion from the fruits of the plant is given in cases of burning sensation due to fever.
- The juice prepared using the fruit of Rhus parviflora is added with date fruit, tamarind, gooseberry, pomegranate seed is given to patients suffering from alcoholism.
- The dried powder of the bark is given in dose of 3 - 5 g with buttermilk to treat indigestion, diarrhea, nausea and lack of appetite.

सिञ्चाम्लोम्लान्तिकी बीत शुक्ता चण्डा च चुक्रिका ।

अम्ला स्तम्भैनिका चुक्रा तिन्तिडी तिन्रिणी तथा ॥

चिञ्चाम्लोष्णा गुरुर्वातहरी पित्तकफास्रदा ।

तिन्तिणीकुसुमं स्वादु कषायाम्लं रुचिप्रदम् ॥

कफमारुतमेहघ्नं विशदं दीपनं लघु ।  
 तिन्तिडीकफलं बालमसृक्पित्तबलासकृत् ॥  
 ग्राह्युष्णं दीपनं रुच्यं मध्यमं कफवातनुत् ।  
 तद्वत् पक्वा सरा रूक्षा रुच्याग्निवस्तिशुद्धिकृत् ॥  
 हृद्या कफघ्नी शुष्कैवं तृक्कलमश्रमजिल्लघुः ।  
 वातश्लेष्मकरं ज्ञेयं नवं तिन्तिडिकाफलम् ॥  
 सम्बत्सरस्थितं तत्तु पित्तघ्नमनिलापहम् । कैयदेवनिघण्टु - ओषधिवर्ग  
 अम्लिका चुक्रिका चुक्रा साम्ला शुक्ताऽथ शुक्तिका ।  
 अम्लिका चिञ्चिका चिञ्चा तिन्तिडीका सुतित्तिडी ॥  
 अम्लिकायाः फलं चाम्लमत्यन्तं पित्तकृल्लघु ।  
 रक्तकृद्वातशमनं बस्तिशुद्धिकरं परम् ॥  
 पक्वं तु मधुराम्लं च भेदि विष्टम्भि वातजित् ।  
 त्वक्भस्म स्यात्कषायोष्णं कफघ्नं त्वनिलापहम् ॥ धन्वन्तरिनिघण्टु -  
 आम्रादिवर्ग  
 अम्लिका चुक्रिकाम्ली च चुक्रा दन्तशठापि च ।  
 अम्ला च चिञ्चिका चिञ्चा तिन्तिडीका च तिन्तिडी ॥  
 अम्लिकाऽम्ला गुरुर्वातहरी पित्तकफास्रकृत् ।

पक्वा तु दीपनी रूक्षा सरोष्णा कफवातनुत् ॥ भावप्रकाश -

आम्रादिफलवर्ग

वृक्षाम्लं तिन्तिडीकञ्च चुक्रं स्यादम्लवृक्षकम् ।

वृक्षाम्लमाममम्लोष्णं वातघ्नं कफपित्तलम् ।

पक्वन्तु गुरु संग्राहि कटुकं तुवरं लघु ॥

अम्लोष्णं रोचनं रूक्षं दीपनं कफवातकृत् ।

तृष्णाशोग्रहणीगुल्मशूलहृद्रोगजन्तुजित् ॥ भावप्रकाश -

आम्रादिफलवर्ग

siñcāmlomlāntikī bīta śuktā caṇḍā ca cukrikā |

amlā stambhainikā cukrā tintiḍī tintriṇī tathā ||

ciñcāmloṣṇā gururvātaharī pittakaphāsrādā |

tintiṇīkusumaṃ svādu kaṣāyāmlaṃ rucipradam ||

kaphamārutamehaghnaṃ viśadaṃ dīpanaṃ laghu |

tintiḍīkaphalaṃ bālamasṛkpittabalāsakṛt ||

grāhyuṣṇaṃ dīpanaṃ rucyaṃ madhyamaṃ kaphavātanut |

tadvat pakvā sarā rūkṣā rucyāgnivastīśuddhikṛt ||

hr̥dyā kaphaghni śuṣkaivaṃ tr̥ṭklamaśramajillaghuḥ |

vātaśleṣmakaraṃ jñeyaṃ navaṃ tintiḍīkāphalam ||

samvatsarasthitaṃ tatttu pittaghnamanilāpaham |

kaiyadevanighaṇṭu - oṣadhivarga

amlikā cukrikā cukrā sāmlā śuktā'tha śuktikā |  
amlikā ciñcikā ciñcā tintiḍikā sutittiḍī ||  
amlikāyāḥ phalaṃ cāmlamatyantam pittaḥllaghu |  
raktakṛdvātaśamanam bastiśuddhikaram param ||  
pakvam tu madhurāmlam ca bhedi viṣṭambhi vātajit |  
tvakbhasma syātkaṣāyoṣṇam kaphagham tvanilāpaham ||  
dhanvantarinighaṇṭu - āmrādivarga  
amlikā cukrikāmlī ca cukrā dantaśaṭhāpi ca |  
amlā ca ciñcikā ciñcā tintiḍikā ca tintiḍī ||  
amlikā'mlā gururvātaharī pittakaphāsrakṛt |  
pakvā tu dīpanī rūkṣā saroṣṇā kaphavātanut || bhāvaprakāśa -  
āmrādīphalavarga

vṛkṣāmlam tintiḍikañca cukram syādamlavrṛkṣakam |  
vṛkṣāmlamāmamamloṣṇam vātagham kaphapittalam |  
pakvantu guru saṃgrāhi kaṭukam tuvaram laghu ||  
amloṣṇam rocanam rūkṣam dīpanam kaphavātakṛt |  
tṛṣṇārśograhāṅgulmaśūlahṛdrogajantujit || bhāvaprakāśa -  
āmrādīphalavarga

## **Qualities and benefits of Rhus parviflora as per**

### **Ayurveda:**

### **Unripe fruit:**

Vatahara - useful in treating disorders of Vata Dosha imbalance

such as neuralgia, paralysis, constipation, bloating, etc But increases Kapha Pitta Dosha.

Grahi - absorbent, useful in diarrhea, IBS

Ushna - hot

Deepana - improves digestion strength

Ruchya - improves taste, relieves anorexia.

### **Moderately ripe fruit:**

Balances Kapha Vata Dosha

### **Ripe fruit:**

Balances Kapha Vata Dosha

Sara - induces mobility, causes diarrhea, purgation, relieves constipation

Rooksha - dryness

Ruchikrut - improves taste, relieves anorexia

Agnikrut - Improves digestion strength

Vastishuddhikrut - cleanses bladder

Hrudya - acts as cardiac tonic, congenial for heart

### **Dried fruit:**

Indicated in

Trut - excessive thirst

Klama - tiredness

Shrama - tiredness, fatigue

**One year old fruit** balances Pitta and Kapha Dosha.

### **Flower:**



Svadu - sweet

Kashaya - astringent

Amla - sour

Balances Kapha and Vata Dosha

Indicated in

Meha - diabetes, urinary tract disorders

Vishada - clarity

Deepana - improves digestion strength

Laghu - light to digest

**Adverse effect** - Excessive use of Tintidika can cause hyperacidity and regurgitation.

### **Formulations containing Tintidika:**

**Vyoshadi vati:** Vyoshadi Vatakam is an effective Ayurvedic medicine for cold, cough and such other respiratory diseases. It is in tablet or granules form. It is also known as Vyoshadi Vati.

**Hinguvachadi choorna:** Hinguvachadi Choornam is an Ayurvedic medicine, in herbal powder form. It is used in Ayurvedic treatment of indigestion, bloating and abdominal pain.

**Yavani shadava choorna:** Yavani Shadava Churna is an Ayurvedic medicine, in herbal powder form. It is used to treat constipation, abdominal pain due to digestion imbalance and bloating.

### **Research articles about Rhus parviflora:**

**Anti - HIV - 1 activity:** In the present study, extracts

prepared from the leaves of *Rhus parviflora* Roxb. (Anacardiaceae) were evaluated for their anti - HIV activity. Both aqueous (IC<sub>50</sub>=15 µg/ml) and 50% ethanolic (IC<sub>50</sub>=26 µg/ml) extracts prepared from leaves of *R. parviflora* showed anti - HIV activity in TZM - bl cells wherein the virus was treated with the extracts prior to infection. Further, both the extracts also inhibited virus load in HIV infected CEM - GFP cells and human PBLs. The anti - HIV activity is mediated through inhibition of HIV - 1 protease activity.

### **Classical categorization:**

Bhavaprakasha - Amradi phala varga  
Dhanvantari Nighantu - Amradi varga  
Kaiyyadeva Nighantu - Oushadhi varga

### **Scientific classification**

Kingdom: Plantae  
Order: Sapindales  
Family: Anacardiaceae  
Subfamily: Anacardioideae  
Genus: Toxicodendron

## **56. Meswak *Salvadora persica*: Benefits, Remedies, Research, Side Effects**

Peelu - *Salvadora persica*, more popularly known as 'Meswak' is an Ayurvedic herb for cleaning the teeth, treating cases of rheumatoid arthritis, snake bite, piles, common cold, fever and for the use of purgation.

Latin name - *Salvadora persica* Linn.

Family - Salvadoraceae

### **Names in different languages:**

Hindi name - Jhaka, Meswak

English name - Tooth brush tree, Mustard tree, Salt brush tree

Arabic name - Arak

Bengali name - Jhal

Gujarathi name - Khari Jhal

Kannada name - Goni mara

Marathi name - Peelu, Khakana

Punjabi name - Peelu

Telugu name - Vara gogu

Tamil name - Perungoli

### **Sanskrit Synonyms -**

Guda phala - The fruits are sweet

Teekshnataru, Sramsai, Shakhi, Karabhavallabha, Sheetasaha, Sahasrangi, Virechana phala

Dhani, Shyama, Galaphala

## **Morphology of Meswak:**

Pilu is a bushy shrub or small tree growing to a height of 8 - 10 feet. The stems are weak, twisted. Its bark is scabrous and cracked, whitish with pendulous extremities. The root bark of the tree is similar to sand, and the inner surfaces are an even lighter shade of brown. It has a pleasant fragrance, of cress or mustard, as well as a warm and pungent taste. The flowers of the plant are pale green and blooms in the month of spring. The fruit is red when ripe, has a diameter of 0.5 inch, round, sweet and gives a strong, pleasant smell when crushed. It is seen in the summer season. The root is used in many parts of the world as a tooth brush. The plant is found all over India in the dry area. The tree is a native of Persia.

## **Properties:**

Rasa (Taste) - Tikta (Bitter), Madhura (Sweet)

Guna (Qualities) - Laghu (Light for digestion), Snigdha (Slimy in nature), Teekshna (Strong)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Fruit, Seed, Leaf and Root bark

**Dosage** -

Powder of seed: 3 - 5 g

Decoction: 50 - 100 ml



**Salvadora persica chemical constituents:**

The root gave elemental gamma - monoclinic sulphur, benzyl glucosino - late, salvadourea (a urea derivative), m - anisic acid and sitosterol. Benzyl isothiocyanate, isolated from the root, exhibits antiviral activity against Herpes simplex virus - 1 which affects oral region. Root bark and stem bark contain trimethy - lamine. Myristic, lauric and palmitic acids are the major acid

components of the seed fat.



### **Uses of Pilu:**

- The oil extracted from the seeds of the plant *Salvadora persica* is applied over the joints in cases of rheumatoid arthritis.
- The cold infusion or the decoction prepared from the leaf of the plant is given in a dose of 40 - 50 ml to treat cough.
- The leaf of the plant is slightly heated and tied over the part of the body or joints affected with pain and inflammation.
- The paste of the root and root bark is applied over the area affected with snake bite to relieve inflammation and pain.

- The cold infusion prepared from the fruit is given in a dose of 40 - 50 ml to treat fever.
- The small twigs of the plant Meswak is used as toothbrush for cleaning the teeth. This practice is still prevalent in some parts of the country where Pilu is found.
- The fruits and the decoction of the root are given to treat dysmenorrhea and difficulty in micturition.
- The ripened fruit is consumed in helping passing of the constipated bowels.
- The seeds acts like 'Virechaka' (increased intestinal motility) and is used for 'virechana karma'.
- The powder of the seed is used for Pradhamana Nasya (blown through nose) to treat rhinitis and sinusitis.
- The paste of the leaf is applied over the external pile mass as part of treatment.
- The paste of the leaf and seed is applied over the area affected with skin diseases.
- The extract of the plant is used in toothpaste by some of the manufacturers.

पीलुस्तीक्ष्णतरुः संसी शाखी करभवल्लभः ।

शीतसहो गुडफलः सहस्राङ्गी विरेचनः ॥

पीलूष्णमूषणं पाकरसयोर्भेदि दीपनम् ।

तीक्ष्णं विदाहि पित्तास्रजननं सन्नियच्छति ॥

गुल्मार्शःकफवातास्रप्लीहानाहगरोदरम् ।

तत् स्वादु तिक्तं दोषघ्नं सोष्णं रूक्षं रसायनम् ॥ कैयदेवनिघण्टु -

ओषधिवर्ग

पीलुः शीतः सहस्रांशी धानी गुडफलोऽपि च ।

विरेचनफलः शाखी श्यामः करभवल्लभः ॥

रक्तपित्तहरः पीलुः फलं कटुविपाकि च ।

अर्शोघ्नं वस्तिशमनं सस्नेहं कफवातजित् ॥

पीलुजं च रसे स्वादु गुल्मार्शोघ्नं तु तीक्ष्णकम् । धन्वन्तरिनिघण्टु -

आम्रादिवर्ग

पीलुर्गुलफलः संसी तथा शीतफलोऽपि च ।

पीलु क्षेष्मसमीरघ्नं पित्तलं भेदि गुल्मनुत् ।

स्वादु तिक्तञ्च यत्पीलु तन्नात्युष्णं त्रिदोषहृत् ॥ भावप्रकाश -

आम्रादिफलवर्ग

पीलुः शीतः सहस्रांशी धानी गुडफलस्तथा ।

विरेचनफलः शाखी श्यामः करभवल्लभः ॥



अङ्काहः कटुकः पीलुः कषायो मधुराम्लकः ।

सरः स्वादुश्च गुल्मार्शःशमनो दीपनः परः ॥ राजनिघण्टु - आम्रादिवर्ग

pīlustīkṣṇataruḥ sraṃsī śākhī karabhavallabhaḥ |  
śītasaho guḍaphalaḥ sahasrāṅgī virecanaḥ ||  
pīlūṣṇamūṣaṇaṃ pākarasayorbhedi dīpanam |  
tīkṣṇaṃ vidāhi pittāsrajananaṃ sanniyacchati ||  
gulmārśaḥkaphavātāsrapihānāhagarodaram |  
tat svādu tiktam doṣaghnaṃ soṣṇaṃ rūkṣaṃ rasāyanam ||  
kaiyadevanighaṇṭu - oṣadhivarga

pīluḥ śītaḥ sahasrāṃśī dhānī guḍaphalo'pi ca |  
virecanaphalaḥ śākhī śyāmaḥ karabhavallabhaḥ ||  
raktapittaharaḥ pīluḥ phalaṃ kaṭuvipāki ca |  
arśoghaṃ vastīśamanaṃ sasnehaṃ kaphavātajit ||  
pīlujaṃ ca rase svādu gulmārśoghaṃ tu tīkṣṇakam |  
dhanvantarinighaṇṭu - āmrādivarga

pīlurgulaphalaḥ sraṃsī tathā śītaphalo'pi ca |  
pīlu śleṣmasamīraghaṃ pittalaṃ bhedi gulmanut |  
svādu tiktañca yatpīlu tannātyuṣṇaṃ tridoṣahr̥t || bhāvaprakāśa  
- āmrādīphalavarga

pīluḥ śītaḥ sahasrāṃśī dhānī guḍaphalastathā |  
virecanaphalaḥ śākhī śyāmaḥ karabhavallabhaḥ ||  
aṅkāhvaḥ kaṭukaḥ pīluḥ kaṣāyo madhurāmlakaḥ |

saraḥ svāduśca gulmārśaḥśamano dīpanaḥ paraḥ ||  
rājanighaṇṭu - āmrādivarga

### **Ayurvedic description:**

Deepana - improves digestion strength

Teekshna - strong, piercing

Vidahi - causes burning sensation

Pittasrajanana - causes pitta increase and blood vitiation

Balances Kapha and Vata Dosha

### **Indicated in -**

Gulma - Tumors of the abdomen

Arsha - haemorrhoids

Bhedi - piercing

**Adverse effects** - Persons suffering from diarrhea should not consume the fruits of Pilu as it can worsen the condition.

Oral intake is not suitable for Pitta bodytype person or in high Pitta disorders.

### **Research articles about *Salvadora persica*:**

[Effect on oral health:](#) The stick of the plant has anti - microbial, anti - carcinogenic action in the oral cavity. Besides it helps in reducing dental plaques and gingivitis.

[Preventing dental caries:](#) In this research the efficacy of Miswak in preventing dental caries was investigated and

compared with the efficacy of toothbrush and tooth - paste. The data collected at the end of the study showed a significant increase in DMFT in the control group (p - value = 0.000). There was 55% increase in the rate of dental caries in control group compared to case group (0.89 before the study and 1.38 after the study). The risk of dental caries for each tooth in control group was 9.35 times more than case group (9.14% and 0.98% respectively). Dental caries rate was detected slightly less in the case group at the end of this study.

### **Classical categorization:**

Charaka - Virechanopaga, Shirovirechana, Jwarahara,

Katuskandha

Sushruta - Shirovirechana

Dhanvantari Nighantu - Amradi varga

Bhavaprakasha - Amradi phala varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Amradi varga

### **Scientific classification**

Kingdom: Plantae

Order: Brassicales

Family: Salvadoraceae

Genus: Salvadora

Species: S. persica

## **57. Karonda Carissa carandas: Benefits, Remedies, Research, Side Effects**

Karamarda - Carissa Carandas is an Ayurvedic plant used for the treatment of acidity, indigestion, fresh and infected wounds, skin diseases, urinary disorders and diabetic ulcer.

Latin name - Carissa Carandas Linn.

Family - Apocynaceae

### **Names in different languages:**

Hindi name - Karonda

English name - Bengal currant, Christ's thorn, Christ's thorn, karanda, black currant.

Kannada name - Kauli hannu, Karande kai

Assamese name - Karja tenga

Bengali name - Koromcha

Maithili name - Karauna

Marathi name - Kali maina

Tamil name - Kilakkai, aintirikam, cenkala, karavinta, kilamaram, kilatti, perumkla, perungilamaram.

Telugu name - Vakkai

Kannada name - doddakaala, garchinikai, karinda.

Malayalam name - kalavu, karaka, karanta, karekkai. panimarda, susena, vanalaya, vanakshudra.

Hindi name - garinga, gotho, karonda.

Telugu name - kalay, kali - kai, peddakalavi.

Marathi name - boranda, boronda.karanda.



### **Synonyms of Karamard**

Krishnapaka phala - The fruit is black when ripened

Kshiraphena - Latex is seen when fruit is plucked

Sushena, Karamardika,

Vanekshudra - Medium sized tree growing in forests

Samlapushpa, Karamla, Panimardaka, Sthalapurkata, Avigna,

Laghuphala,



## **Morphology:**

Karamarda is a plant found all over India in the temperate climate. The plant produces berry sized fruits which are green when unripe and turns into reddish black when ripe. The ripe fruit exudes white latex when severed from the branch.

## **Karonda medicinal properties:**

Rasa - Amla (Sour - in unripe fruit) Madhura (Sweet - in ripened fruit)

Guna (Qualities) - Guru (Heavy for digestion)

Vipaka - Amla (undergoes sour taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Vatahara (reduces vitiated vata dosha),  
Hridya (Benefit the heart).

Unripe fruit may cause increase of Kapha and Pitta Dosha.



**Part used** - Fruit, Stem bark

**Dosage:**

Decoction - 40 to 50 ml

Root powder - 1 - 3 g

### **Carissa Carandas chemical constituents:**

The roots yield cardioactive compounds; cardiotoxic activity is due to glucoside of odoroside H. Fresh fruits are rich in ascorbic acid. The seeds of the fruit is rich in potassium.



### **Medicinal Uses of Karamarda - Carissa Carandas**

- The fresh fruit juice of karamarda is consumed in a dose of 10 - 15 ml to improve the appetite and digestion.
- The decoction of the root is given in a dose of 30 - 40 ml to treat difficulty in micturition.
- The fresh juice of the fruit of Carissa carandas is consumed daily in dose of 15 - 20 ml to strengthen the cardiac muscles.

- The stem bark of karamarda is given in a dose of 40 - 50 ml to treat different skin diseases.
- The paste prepared from the leaf or bark is applied over fresh wounds for its treatment.
- The fresh fruit is used to prepare pickles, jams, jelly etc.
- The paste of the root is applied over the diabetic ulcer.

कृष्णपाकफला प्रोक्ता सुषेणा करमर्दिका ।

वनेक्षुद्रा क्षीरफेना साम्लपुष्पा च तत्फलम् ॥

पाणिमर्धकमाविघ्नं कराम्लं स्थलपर्कटम् ।

करमर्दं गुरुष्णाम्लं रुच्यं पित्तकफास्रकृत् ॥

तृड्वातजित् सरं पक्वं लघु स्वादु कफास्रजित् ।

शुष्कं पक्ववदप्यामं पक्वमप्यार्द्रमामवत् ॥ कैयदेवनिघण्टु - ओषधिवर्ग

करमर्दकमाविघ्नं सुषेणं पाणिमर्दकम् ।

कराम्लं करमर्दं च कृष्णपाकफलं मतम् ॥

अम्लं तृष्णापहं रुच्यं पित्तकृत्करमर्दकम् ।

पक्वं च मधुरं शीतं रक्तपित्तहरं मतम् ॥ धन्वन्तरिनिघण्टु - आम्रादिवर्ग

करमर्दः सुषेणः स्यात्कृष्णपाकफलस्तथा ।

तस्माल्लघुफला या तु सा ज्ञेया करमर्दिका ॥

करमर्दद्वयं त्वाममम्लं गुरु तृषाहरम् ।



उष्णं रुचिकरं प्रोक्तं रक्तपित्तकफप्रदम् ।

तत्पक्वं मधुरं रुच्यं लघु पित्तसमीरजित् ॥ भावप्रकाश - आम्रादिफलवर्ग

करमर्दः सुषेणश्च कराम्लः करमर्दकः ।

अविग्नः पाणिमर्दश्च कृष्णपाकफलो मुनिः ॥

करमर्दः सतिक्ताम्लो बालो दीपनदाहकः ।

पक्वस्त्रिदोषशमनोऽरुचिघ्नो विषनाशनः ॥ राजनिघण्टु - आम्रादिवर्ग

करमर्दफलं चार्द्रमम्लं पित्तकफप्रदम् ।

भेदनं चोष्णवीर्यं च वातप्रशमनं गुरु ॥

पक्वशुष्केल्पपित्ते च तन्मूलं कृमिनुत्सरम् । सोढलनिघण्टु - आम्रादिवर्ग

kr̥ṣṇapākaphalā proktā suṣeṇā karamardikā ।

vanekṣudrā kṣīraphenā sāmlapuṣpā ca tatphalam ॥

pāṇimardhakamāvighnaṃ karāmlaṃ sthalapūrkaṭam ।

karamardaṃ gurūṣṇāmlaṃ rucyaṃ pittakaphāsraḥ ॥

tr̥ḍvātajit saraṃ pakvaṃ laghu svādu kaphāsrajit ।

śuṣkaṃ pakvavadapyāmaṃ pakvamapyārdramāmat ॥

kaiyadevanighaṇṭu - oṣadhivarga

karamardakamāvighnaṃ suṣeṇaṃ pāṇimardakam ।

karāmlaṃ karamardaṃ ca kr̥ṣṇapākaphalaṃ matam ॥

amlaṃ tr̥ṣṇāpahaṃ rucyaṃ pittakṛtkaramardakam ।

pakvaṃ ca madhuraṃ śītaṃ raktapittaharaṃ matam ||  
dhanvantarinighaṇṭu - āmrādivarga  
karamardaḥ suṣeṇaḥ syātkṛṣṇapākaphalastathā |  
tasmāllaghuphalā yā tu sā jñeyā karamardikā ||  
karamardadvayaṃ tvāmamamlam guru trṣāharam |  
uṣṇaṃ rucikaraṃ proktaṃ raktapittakaphapradam |  
tatpakvaṃ madhuraṃ rucyaṃ laghu pittasamīrajit ||  
bhāvaprakāśa - āmrādiphalaavarga  
karamardaḥ suṣeṇāśca karāmlaḥ karamardakaḥ |  
avignaḥ pāṇimardaśca kṛṣṇapākaphalo muniḥ ||  
karamardaḥ satiktāmlo bālo dīpanadāhakaḥ |  
pakvastridoṣaśamano'rucighno viṣanāśanaḥ || rājanighaṇṭu -  
āmrādivarga  
karamardaphalaṃ cārdramamlam pittakaphapradam |  
bhedanaṃ coṣṇavīryaṃ ca vātapraśamanaṃ guru ||  
pakvaśuṣkelpapitte ca tanmūlaṃ kṛminutsaram |  
soḍhalanighaṇṭu - āmrādivarga

### **Uses of Karamarda as per Ayurveda:**

Unripe fruit, but dried, carries the benefits of ripe fruit.

Ripe fruit, not dried, behaves like unripe fruit.

Sara - induces mobility, causes diarrhea, purgation, relieves constipation

Indicated in

Trut - excessive thirst

### **Unripe fruit -**

Amla - sour

Deepana - improves digestion strength

Dahakara - may cause burning sensation

Bhedana - causes laxation

Asrakrut - not ideal in bleeding disorders.

### **Ripe Karounda fruit**

Madhura - sweet

Ruchya - improves taste, relieves anorexia.

Laghu - light to digest

Balances Pitta and Vata Dosha.

Vishahara - Anti toxic

Root is useful in Krumi - worm infestation

**Adverse effect** - Excessive use of the fruit of karamarda can cause hyper - acidity. Unripe fruit may cause burning sensation and worsening of bleeding disorders.

### **Research articles about Carissa carandas:**

**Anti - inflammatory action:** In this experiment first the researchers induced edema by injecting 1% carrageenan, thereby caused the release of autacoids, histamine, and 5 - hydroxy tryptamine (5 - HT). Once the inflammation starts declining from maximum, prostaglandins started to act which

results in the migration of leukocytes into the inflamed site. Here, indomethacin was used as standard drug. The presence of the reported chemical constituents like myo - inositol, 4 - c - methyl, 2 - acetoxymethyl - 1,3,3 - trimethyl - 4t - (3 - methyl - 2 - buten - 1 - yl) - 1t - cyclohexanol, dichloroacetic acid, 2 - ethylhexyl ester, and 12 - oleanen - 3 - yl acetate, (3 - alpha), by GC - MS analysis provided the fact that they might suppress the formation of bradykinin and prostaglandin in the system.

**Anti - bacterial action:** Cold Aqueous, Methanol, Ethanol, Ethyl Acetate extracts of leaves of *Carissa carandas* in a final concentration of 500 mg/ml were evaluated for their antibacterial properties against some selected pathogenic microorganisms such as *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Escherichia coli* using agar well diffusion method.

Methanolic, Ethyl Acetate and Ethanolic extracts of *Carissa carandas* leaves show an average inhibitory zone diameter of 23.5, 22.0 and 21.5 mm respectively which indicate that the Methanolic extract has shown the best result having Zone of Inhibition greater than that of the standard antibiotic Tetracycline (17.0 mm).

**Anti - convulsant activity:** The aim of the present study was to investigate anti - convulsant effect of the ethanolic extract of the roots of *Carissa carandas* (ERCC) on electrically and

chemically induced seizures. The ethanolic extract of the roots of *C. carandas* (100, 200 and 400 mg/kg, i.p.) was studied for its anticonvulsant effect on maximal electroshock - induced seizures and pentylenetetrazole - , picrotoxin - , bicuculline - and N - methyl - dl - aspartic acid - induced seizures in mice. The latency of tonic convulsions and the number of animals protected from tonic convulsions were noted. The data suggest that the ethanolic root extract of *C. carandas* may produce its anticonvulsant effects via non - specific mechanisms since it reduced the duration of seizures produced by maximal electroshock as well as delayed the latency of seizures produced by pentylenetetrazole and picrotoxin.

**Anthelmintic action:** The objective of the present work was to evaluate the in - vitro anthelmintic potency of the petroleum ether (60 - 80), chloroform and ethanolic unripe fruits extract of *Carissa carandas* Linn using Indian earthworms (*Pheretima posthuma*). The various concentrations (50, 100, and 150 mg/ml) of the different solvent extract were tested in in - vitro for anthelmintic potency by determination of time of paralysis and time of death of worm. The result of present study indicates that the unripe fruits extract of *Carissa carandas* Linn Potentiate to paralyze earthworm and also caused its death after some time.



### **Classical categorization:**

Charaka Samhita - Hridya - group of herbs good for heart

Sushruta Samhita - Kantaka Panchamoola

Vagbhata - Hridya

Dhanvantari Nighantu - Amradi varga

Bhavaprakasha - Amradi phala varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Amradi varga

Shodala Nighantu - Amradi varga

### **Scientific classification**

Kingdom: Plantae

Order: Gentianales

Family: Apocynaceae

Genus: Carissa

Species: C. carandas

## 58. **Jivanti Leptadenia reticulata: Benefits, Remedies, Research, Side Effects**

Jivanti - Leptadenia reticulata is an Ayurvedic herb used for the treatment of fever, urinary infection, improving the eye vision and for nourishing the body tissues.

Latin name - Leptadenia reticulata W. & A.

Family - Asclepidaceae

### **Morphology:**

Jivanti is a climber growing throughout India. The leaf is cardiac shaped having small hairs in the under surface. The flowers are greenish yellow and found in clusters. The fruits which are small is used as vegetable.

### **Names in different languages:**

Hindi name - Dodi shak, Ranimoi, Chirvel

Gujarathi name - Nahanidodi, Khirkhodi, Raidodi, Shinguti

Marathi name - Gaganthjuti, Palkhevel

Kannada name - Palatheege balli

Malayalam name - Atapathiyan, Curinil, Adapathiyan

Tamil name - Palaikkodi, Paalaikeerai

Telugu name - Kalasa, Mukkuttummudu, Palatige

### **Sanskrit synonyms:**

Shakashresta - Used as good vegetable

Chakshushya - Improves the vision

Jeevanti, Jeeva, Jeevaneeya, Jeevaprushta - Nourishes the

body

Arkapushpi - Flowers resemble that of 'Arka' flowers

Madhushwasa, Madhusrava - The exudate is sweet in taste

Mangalya - It is auspicious

Suvarnajeevanti,

Payasvini, Kulya, Bhadra, Yashaskari, Jivabhadra, Putrabhadra,

Mangalya - auspicious

### **Properties:**

Rasa (Taste) - Madhura (Sweet)\

Guna (Qualities) - Laghu (Light), Snigdha (Slimy)

Vipaka - Madhura (Sweet)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Tridosha shamaka especially Vata pitta  
shamaka (reduces vitiated vata and pitta dosha)

**Part used** - Root

**Dosage** - Powder of root - 4 to 6 g

Decoction - 40 to 60 ml

### **Chemical constituents:**

The herb contains n - triacontane, cetyl alcohol, beta -  
sitosterol, beta - amyirin acetate, lupanol 3 - O - diglucoside  
and leptidine glycoside.

### **Uses of Jivanthi:**



- The decoction of the root of *Leptidinia reticulata* is given with Ghee in a dose of 40 - 50 ml to treat fever.
- The tender stems and fruits are eaten as vegetable, which helps in the improvement of the vision.
- The decoction of the plant is given in dose of 40 - 50 ml with honey to treat cough.
- The paste of jivanthi plant is applied over fresh wounds to treat it.
- The cold infusion or the fresh juice of the plant is given regularly as a health tonic for the nourishment of the body.
- In cases of mouth ulcer, sesame oil cooked with equal quantity of milk and paste of Jivanti is mixed with honey 1/8<sup>th</sup> quantity and Sarjarasa.
- Cold infusion prepared from *Leptidinia reticulata* is given in a dose of 30 - 40 ml to treat difficulty in micturition and burning micturition.
- Fresh juice or cold infusion of the plant is given to increase the breast milk in lactating women.

जीवन्ती जीवनी जीवा कुल्या भद्रा मधुश्रवा ।

मधुश्वासा जीवपृष्ठा शाकश्रेष्ठा यशस्करी ॥

नामधेया जीवभद्रा पुत्रभद्रा सुखङ्करी ।

जीवनीया देवभद्रा मङ्गल्या शृङ्गरीटिका ॥

इति काडोडीनाम महाराष्ट्रे तावती नाम ।

जीवन्ती मधुरा शीता सुस्निग्धा ग्राहिणी लघुः ।

चक्षुष्या सर्वदोषघ्नी बल्यायुष्या रसायनी ॥

जीवन्तीफलमत्यर्थमधुरं बृंहणं गुरु । कैयदेवनिघण्टु - ओषधिवर्ग

जीवन्ती सर्वशाकेषु वरा हीनस्तु सर्षपः ॥ कैयदेवनिघण्टु

जीवन्ती जीवनीया च जीवनी जीववर्धनी ।

माङ्गल्यनामधेया च शाकश्रेष्ठा यशस्करी ॥

चक्षुष्या सर्वदोषघ्नी जीवन्ती मधुरा हिमा ।

शाकानां प्रवरा यूनां द्वितिया किञ्चिदेव तु ॥ धन्वन्तरिनिघण्टु -

गुडूच्यादिवर्ग

जीवन्ती जीवनी जीवा जीवनीया मधुस्रवा ।

मङ्गल्यनामधेया च शाकश्रेष्ठा पयस्विनी ॥

जीवन्ती शीतला स्वादुः स्निग्धा दोषत्रयापहा ।

रसायनी बलकरी चक्षुष्या ग्राहिणी लघुः ॥ भावप्रकाश - गुडूच्यादिवर्ग

जीवन्ती स्याज्जीवनी जीवनीया जीवा जीव्या जीवदा जीवदात्री ।

शाकश्रेष्ठा जीवभद्रा च भद्रा मङ्गल्या च क्षुद्रजीवा यशस्या ॥

शृङ्गाटी जीवपृष्ठा च काञ्जिका शशशिम्बिका ।

सुपिङ्गलेति जीवन्ती ज्ञेया अष्टादशाभिधा ॥

जीवन्ती मधुरा शीता रक्तपित्तानिलापहा ।

क्षयदाहज्वरान् हन्ति कफवीर्यविवर्धनी ॥ राजनिघण्टु - गुडूच्यादिवर्ग

jīvantī jīvanī jīvā kulyā bhadrā madhuśravā |

madhuśvāsā jīvapṛṣṭhā śākaśreṣṭhā yaśaskarī ||

nāmadheyā jīvabhadrā putrabhadrā sukhañkarī |

jīvaniyā devabhadrā maṅgalyā śṛṅgarīṭikā ||

iti kāḍoḍīnāma mahārāṣṭre tāvatī nāma |

jīvantī madhurā śītā susnigdḥā grāhiṇī laghuḥ |

caḥṣuṣyā sarvadoṣaghnī balyāyuṣyā rasāyanī ||

jīvantīphalamatyarthamadhuraṃ bṛṃhaṇaṃ guru |

kaiyadevanighaṇṭu - oṣadhivarga

jīvantī sarvaśākeṣu varā hīnastu sarṣapaḥ || kaiyadevanighaṇṭu

jīvantī jīvaniyā ca jīvanī jīvavardhanī |

maṅgalyanāmadheyā ca śākaśreṣṭhā yaśaskarī ||

caḥṣuṣyā sarvadoṣaghnī jīvantī madhurā himā |

śākānāṃ pravārā yūnāṃ dvitīyā kiñcideva tu ||

dhanvantarinighaṇṭu - guḍūcyādivarga

jīvantī jīvanī jīvā jīvaniyā madhusravā |

maṅgalyanāmadheyā ca śākaśreṣṭhā payasvinī ||

jīvantī śītalā svāduḥ snigdḥā doṣatrayāpahā |

rasāyanī balakarī caḥṣuṣyā grāhiṇī laghuḥ || bhāvaprakāśa -

guḍūcyādivarga

jīvantī syājīvanī jīvanīyā jīvā jīvyā jīvadā jīvadātrī |  
śākaśreṣṭhā jīvabhadrā ca bhadrā maṅgalyā ca kṣudrajīvā  
yaśasyā ||  
śrṅgāṭī jīvapṛṣṭhā ca kāñjikā śāśāśimbikā |  
supiṅgaleti jīvantī jñeyā aṣṭādaśābhidhā ||  
jīvantī madhurā śītā raktapittānilāpahā |  
kṣayadāhajvarān hanti kaphavīryavivardhanī || rājanighaṇṭu -  
guḍūcyādivarga

### **Uses of Jeevanti as per Ayurveda:**

Grahi - absorbent, useful in diarrhea, IBS

Chakshushya - improves vision, good for eyes, useful in eye disorders

Balya - improves strength and immunity

Ayushya - improves life expectancy

Indicated in

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Kshaya - depletion of body tissues, weight loss, tuberculosis

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Jwara - fever

Fruit

Brumhana - nourishing, nutritious

**Adverse effects** of Jivanthi - No adverse effect is seen or reported after the use of Jivanti

### **Formulations containing Jivanthi:**

[Confido tablet:](#) Confido Tablet is a proprietary Ayurvedic medicine. It is used to treat sexual dysfunctions, Impotence, Seminal debilities, Anxiety associated with sexual performance, Premature ejaculation, Spermatorrhoea and Nocturnal emission.

[Braintab tablets:](#) Braintab Tablet is a proprietary Ayurvedic medicine. It is a good brain tonic. It improves memory and concentration. It relieves anxiety and mental stress.

[Chyavan vit tablet:](#) Chyawan - Vit is a proprietary Ayurvedic medicine in paste/leha form. It is specially prepared to give the benefits of Chyavanaprash to diabetic patients and those who want to avoid sugar.

[Anu taila:](#) It is an oil useful for the treatment of procedure called as Nasya treatment for strengthening ears, eyes, nose, tongue and throat.

[Cephagraine nasal drops:](#) Cephagraine Nasal drops is a proprietary Ayurvedic medicine. It is a natural decongestant and analgesic therapy for sinusitis and migraine. In sinusitis Cephagraine Nasal Drops reduce inflammation, liquefies mucous and relieves congestion. Cephagraine reduces frequency, severity and duration of migraine by its anti-inflammatory and analgesic property.

[Jivantyadi ghrita:](#) Jivantyadi Ghrita is an Ayurvedic medicine, in herbal ghee form. It is used as medicine and also in preparatory procedure called snehakarma for the treatment of early stage of cataract. It controls many pitta based ailments. This gives vitality.

[Chyavanaprash:](#) Chyavanaprasam is used for the treatment of many diseases by improving the body defense mechanism to fight against external stimuli, cough and asthma etc.

[Ashwagandhadi churna:](#) Ashwagandhadi Churna is an Ayurvedic medicine in herbal powder form. It is used in the treatment of dizziness, lack of strength, indigestion, abdominal colic etc.

[Brihat chagalyadi ghrita:](#) Brihat Chagaladya Ghrita is an Ayurvedic medicine in ghee form. It is used in the treatment of

all types of Vata disorders involving emaciation, lack of strength, pain, stiffness etc.

[Sukumaram kashaya churna](#): Sukumaram Kashaya Choorna is a micro - fined powder of the respective Kashaya. It is used in the treatment of gastro - intestinal diseases, hernia, lack of appetite, constipation and piles. It is also useful in menstrual disorders and sterility.

### **Research articles about *Leptidinia reticulata*:**

[Anti - oxidant action](#): In this study different extract were tested for cytotoxicity against human breast adenocarcinoma cell line MCF - 7, human colon adenocarcinoma grade II cell line HT - 29 and non cancer skeletal muscle cell line L6 through 3 - (4, 5 - dimethyl thiazol - 2 - yl) - 5 - diphenyl tetrazolium bromide assay. The total antioxidant potential was estimated by three different antioxidant model diphenylpicrylhydrazyl free radical scavenging activity, H<sub>2</sub>O<sub>2</sub> scavenging activity and FeCl<sub>3</sub> reducing activity. The ethyl acetate extract of both naturally grown plant and tissue cultured plant exhibited significant cytotoxicity with IC<sub>50</sub> values of 21 µg/mL, 26 µg/mL and 22 µg/mL; 20 µg/mL, 30 µg/mL and 18 µg/mL respectively against three cell lines. The diphenylpicrylhydrazyl free radical scavenging activity was found to be highest with IC<sub>50</sub> value of 267.13 µg/mL in ethyl acetate extract.

[Anti - fungal action:](#) The petroleum ether, chloroform, acetone, methanol and aqueous extracts of the aerial parts of *Leptadenia reticulata* Wight and Arn. (Asclepiadaceae) were studied for in vitro antifungal activity against *Aspergillus flavus*, *Aspergillus ruantti*, *Candida tropicalis*, *Candida albicans*, *Trichoderma viride* and *Trichoderma koningii* respectively. The methanolic extract exhibited prominent antifungal activity against all the selected strains.

[Hepato - protective action:](#) The objective of the study was to evaluate the hepatoprotective activity of ethanolic and aqueous extract of stems of *Leptadenia reticulata* (Retz.) Wight. and Arn. in carbon tetrachloride (CCl<sub>4</sub>) - induced hepatotoxicity in rats. Treatment of animals with ethanolic and aqueous extracts significantly reduced the liver damage and the symptoms of liver injury by restoration of architecture of liver as indicated by lower levels of serum bilirubin and protein as compared with the normal and silymarin - treated groups. Histology of the liver sections confirmed that the extracts prevented hepatic damage induced by CCl<sub>4</sub> showing the presence of normal hepatic cords, absence of necrosis, and fatty infiltration.

The objective of this study was to investigate the antiulcer activity of leaves of *Leptadenia reticulata* Linn. (Asclepiadaceae) in rats. Fresh dried leaves of *Leptadenia reticulata* were



extracted by maceration method. Antiulcer activity of the aqueous extract at two concentrations 100 and 200 mg/kg were evaluated in rats using ethanol, indomethacin and pylorus ligation induced ulcer models. Famotidine was used as Standard drug. The evaluated parameters are ulcer index, acid volume, pH and total acidity. The extract (100 mg/kg & 200 mg/kg) showed significant ( $P < 0.001$ ) reduction in acid volume, total acidity and ulcer index as compared to control. This present study indicates that *Leptadenia reticulata* leaves aqueous extract have potential anti - ulcer activity in all the models.

### **Classical categorization:**

Charaka - Jeevaneeya, Madhura skandha, Vayasthapana

Sushruta - Kakolyadi gana

Vagbhata - Jeevaneeya

Bhavaprakasha - Guduchyadi varga

Dhanvantari Nighantu - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Guduchyadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Gentianales

Family: Apocynaceae

Subfamily: Asclepiadoideae

## **59. Gudmar *Gymnema sylvestre*: Benefits, Remedies, Research, Side Effects**

Madhunashini - Gudmar, is a herb popularly known for its anti-diabetic action and is mentioned in Ayurvedic treatment of diabetes, renal calculi, cough, snake poison and jaundice.

Latin name - *Gymnema sylvestre* R.Br.

Family - Asclepiadaceae

### **Gurmar - Names in different languages:**

English name - *Gymnema*, Cowplant, Australian Cowplant

Hindi name - Gudmar, Gurmar

Bengali name - Medasinghi

Gujarathi name - Kavali, Gudamar

Kannada name - Madhunashini

Konkani name - kawli

Marathi name - Kavali, Bedakicha phala

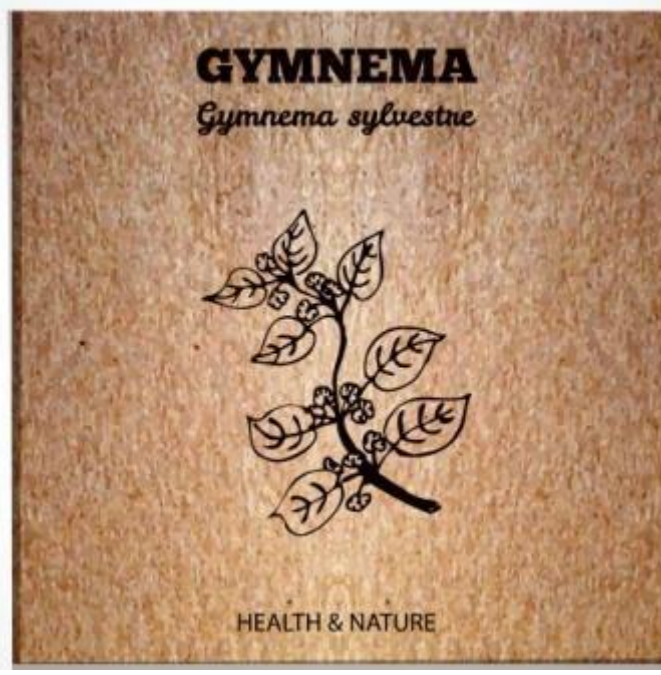
Malayalam name - Madhunashini, Chakkarakolli

Oriya name - Mrygosingo

Tamil name - Shirukurinjan

Telugu name - Podapatri, Vodaparthi

Urdu name - Sasinga



### **Sanskrit Synonym:**

Madhunashini - Destroys the sweet taste, when the leaf is chewed, it becomes hard for the tongue to perceive sweet taste for 10 - 15 minutes.

Vishani - Destroys the poison

Meshashrunji, Basta shrungi, Shrungika, Ajashringi - Leaf resemble the horn of goat

Tiktadugdha - The juice coming from the plant is bitter

Shree Vruksha - auspicious

Vartika - climber,

Padavruksha, Ghanashrunji, Bahalangaka, Bahalanga,

Bahalachakshusha, Vishanika, Kurchaparni,

Sarpadanstra, Akshibheshaja,

**Madhunashini** is a climber with the stem being weak and covered with small hairs. The leaf is 1 - 1.2 inch long, ovate

elliptical and having small hairs on both the surface. The flowers are pale yellowish green. The flowers are seen in the month of August to September and the fruits are seen in the month of January to March. The plant is seen all over India in the temperate climate



**Properties:**

Rasa (Taste) - Kashaya (Astringent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light), Ruksha (Dry)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Leaf, Root

**Dosage** -

Decoction - 40 to 80 ml

Powder - 5 to 6 g

### **Chemical constituents:**

Gymnemagenin, the main sapogenin in the leaves, yielded 3.9 - 4.6% of total gymnemic acids. The leaf also contains quereitol. Apart from these, the whole plant contains Gymnemine, Gymnemagenin and Gypenosies.

### **Uses of Meshashringi:**

- If the juice of the leaf is consumed or if the leaf is chewed, then the tongue loses the perception of sweet taste for few hours.
- The fresh juice of the plant *Gymnema sylvestre* increases the appetite and stimulates the liver for better functioning.
- The paste of the root of *Gymnema sylvestre* is applied over the area bitten by snake, to reduce the effect of poisoning and reduce swelling.
- The paste of the root is mixed with castor oil in area affected with swelling and abdominal area in cases of splenomegaly and hepatomegaly.
- The decoction of the Meshashringi is given in a dose of 40 - 50 ml to treat dysmenorrhea, fever, renal calculi and difficulty in micturition.
- The powder of the seed of Meshashringi is given with honey to treat dyspnea and cough.

- The fresh juice of the root of the plant is given in a dose of 25 - 30 ml to treat snake poisoning.
- The powder of the dried leaf (4 to 6 g) or fresh juice (25 - 30 ml) of leaf is given to reduce the sugar level in the blood.
- The paste of the leaf is applied over the area affected with skin diseases.

श्रीवृक्षो मेषशृङ्गी च बस्तशृङ्गी च शृङ्गिका ॥

पादवृक्षो घनशृङ्गश्चक्षुष्यो बहलाङ्गकः ।

अवल्कोबहलाङ्गः स्यान् नदी बहलचक्षुषा ।

वृश्चिकाली मेषशृङ्गी कूर्चपर्णि विषाणिका ।

शक्रनेमी सर्पदंष्ट्रा मेढ्रावल्ली चवर्तिका ॥

महाफला तिक्तदुग्धा त्वजशृङ्गयक्षिभेषजम् ।

द्वितीया दक्षिणावर्ता वृश्चिकाली सपुच्छिका ॥

शृङ्गिका तुवरा तिक्ता दाहपित्तकफास्रहा ।

निहन्ति तिमिरश्वासकासव्रणविषकृमीन् ॥

मेषशृङ्गीफलं तिक्तं कुष्ठमेहकफप्रणुत् ।

दीपनं संसनं चैव कृमिदोषनिर्बहणम् ॥ कैयदेवनिघण्टु - ओषधिवर्ग

अजशृङ्गी मेषशृङ्गी सर्पदंष्ट्रा च वर्तिका ।

द्वितीया दक्षिणावर्ता वृश्चिकाली विषाणिका ॥  
 अजशृङ्गी हिमा स्वादुः शोफतृष्णावमीर्जयेत् ।  
 चक्षुष्या श्वासहृद्रोगविषकासार्तिकुष्ठनुत् ॥ धन्वन्तरिनिघण्टु -  
 गुडूच्यादिवर्ग  
 मेषशृङ्गी विषाणी स्यान्मेषवल्ल्यजशृङ्गिका ।  
 मेषशृङ्गी रसे तिक्ता वातला श्वासकासहृत् ।  
 रूक्षा पाके कटुस्तिक्ता व्रणक्षेष्माक्षिशूलनुत् ॥  
 मेषशृङ्गीफलं तिक्तं कुष्ठमेहकफप्रणुत् ।  
 दीपनं संसनं कासकृमिव्रणविषापहम् ॥ भावप्रकाश - गुडूच्यादिवर्ग  
  
 अजशृङ्गी मेषशृङ्गी वर्तिका सर्पदंष्ट्रिका ।  
 चक्षुष्या तिक्तदुग्धा च पुत्रश्रेणी विषाणिका ॥  
 अजशृङ्गी कटुस्तिक्ता कफार्शःशूलशोफजित् ।  
 चक्षुष्या श्वासहृद्रोगविषकासार्तिकुष्ठजित् ॥  
 अजशृङ्गीफलं तिक्तं कटूष्णं कफवातजित् ।  
 जठरानलकृत् हृद्यं रुचिरं लवणाम्लकम् ॥ राजनिघण्टु - प्रभद्रादिवर्ग  
 मेषशृङ्गी रक्तपितहरा बल्या रसायनम् ॥



पामाकुष्ठापहा शीता भक्षणात् केशरञ्जनी | गुणसङ्ग्रह - गुडूच्यादिवर्ग

śrīvr̥kṣo meṣaśṛṅgī ca bastaśṛṅgī ca śṛṅgikā ||

pādavr̥kṣo ghanaśṛṅgaścakṣuṣyo bahalāṅgakaḥ |

avalkobahalāṅgaḥ syān nadī bahalacakṣuṣā |

vṛścikālī meṣaśṛṅgī kūrcaparṇi viṣāṇikā |

śakranemī sarpadaṃṣṭrā meḍhrāvallī cavartikā ||

mahāphalā tiktadugdhā tvajaśṛṅgyakṣibheṣajam |

dvitīyā dakṣiṇāvartā vṛścikālī sapucchikā ||

śṛṅgikā tuvarā tiktā dāhapittakaphāsrahā |

nihanti timiraśvāsakāsavraṇaviṣakṛmīn ||

meṣaśṛṅgīphalaṃ tiktam kuṣṭhamehakaphapraṇut |

dīpanam sraṃsanam caiva kṛmidoṣanibarhaṇam ||

kaiyadevanighaṇṭu - oṣadhivarga

ajaśṛṅgī meṣaśṛṅgī sarpadaṃṣṭrā ca vartikā |

dvitīyā dakṣiṇāvartā vṛścikālī viṣāṇikā ||

ajaśṛṅgī himā svāduḥ śopatrṣṇāvamīrjayet |

cakṣuṣyā śvāsahṛdrogaviṣakāsārtikuṣṭhanut ||

dhanvantarinighaṇṭu - guḍūcyādivarga

meṣaśṛṅgī viṣāṇī syānmeṣavallyajaśṛṅgikā |

meṣaśṛṅgī rase tiktā vātalā śvāsakāsahṛt |

rūkṣā pāke kaṭustiktā vraṇaśleṣmākṣisūlanut ||

meṣaśṛṅgīphalaṃ tiktam kuṣṭhamehakaphapraṇut |

dīpanam sraṃsanam kāsakṛmivraṇaviṣāpaham || bhāvaprakāśa

- guḍūcyādivarga

ajaśṛṅgī meṣaśṛṅgī vartikā sarpadamaṣṭrikā |  
cakṣuṣyā tiktadugdhā ca putraśreṇī viśāṇikā ||  
ajaśṛṅgī kaṭustiktā kaphāśaḥśūlaśophajit |  
cakṣuṣyā śvāsahṛdrogaviṣakāsārtikuṣṭhajit ||  
ajaśṛṅgīphalaṃ tiktam kaṭuṣṇam kaphavātajit |  
jaṭharānalakṛt hṛdyaṃ ruciraṃ lavaṇāmlakam || rājanighaṇṭu -  
prabhadrādivarga  
meṣaśṛṅgī raktapitaharā balyā rasāyanam ||  
pāmākuṣṭhāpahā śītā bhakṣaṇāt keśarañjanī | guṇasaṅgraha -  
guḍūcyādivarga

### **Uses of Gurmar as per Ayurveda:**

Chakshushya - improves vision, good for eyes, useful in eye disorders

Indication:

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Shopha - inflammation

Trushna - excessive thirst

Vami - vomiting

Shwasa - asthma and chronic respiratory disorders

Hrudroga - cardiac disorder

Visha - Toxic conditions, poisoning

Kasa - cough, cold

Kushta - skin diseases

Vrana - Ulcers, wounds

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Pama - Keloids, Papules

Kesharanjini - Gives natural black colour to hair.

### **Gudmar Fruit:**

Tikta - bitter

Deepana - improves digestion strength

Sramsana - mild laxative

Hrudya - acts as cardiac tonic, congenial for heart

Indicated in

Kushta - skin diseases

Meha - diabetes, urinary tract disorders

Krumi - worm infestation

**Adverse effects of Madhunashini:** Increased or irregular intake of Meshashringi can bring down the blood sugar level below normal leading to hypoglycemia.

### **Ayurvedic medicines containing Mesh shringi:**

**Bio - Gymnema capsule:** Bio - Gymnema Capsule is a proprietary Ayurvedic medicine. It is an anti - diabetic drug

useful to reduce blood sugar levels and to manage complications associated with diabetes.

**Debix tablet:** It is a proprietary Ayurvedic medicine. It is a nervine tonic, strengthens organs and improves cellular metabolic activity. It stimulates Beta cells of Langarhans for the insulin secretion. It inhibits absorption of carbohydrates from intestine into the blood.

**Glukostat capsule:** Glukostat capsule is a pancreatic stimulant and insulin sensitizer. It is a proprietary Ayurvedic medicine. The capsule restores elevated blood sugar level to normal. It stimulates the pancreas to secrete insulin and increases cell receptor sensitivity to the available insulin.

**Diabegon capsule:** It is a proprietary Ayurvedic medicine indicated in Ayurvedic treatment of Diabetes mellitus and associated complaints.

**Amritamehari churna:** Amritamehari churnam is an Ayurvedic medicine in herbal powder form used for the treatment of diabetes. The medicine is also useful to reduce weakness and good in bladder ailments.

**Limit capsule:** It is a proprietary Ayurvedic medicine indicated in Ayurvedic treatment of Non - insulin dependent diabetes mellitus.

### **Research on Gymnema sylvestre:**

The leaves of the plant are widely used for the treatment of

diabetes and as diuretic in India proprietary medicine. *G. sylvestre*, an Ayurvedic herb, came to be known as “destroyer of sugar” because, in ancient times, Ayurvedia physicians observed that chewing a few leaves of *G. sylvestre* suppressed the taste of sugar. It is used totally all over India for controlling blood sugar. Several bio - active compounds have been isolated from the herb for diabetes care.

**Classical categorization:**

Bhavaprakasha - Guduchyadi varga

Dhanvantari Nighantu - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Prabadradi varga

## **60. Murva Marsdenia tenacissima: Benefits, Remedies, Research, Side Effects**

Murva - Marsdenia tenacissima, is a plant mentioned in Ayurveda for its action in treating diseases due to impure blood, skin diseases, jaundice and fever.

Latin name - Marsdenia tenacissima W & A / Clematis triloba Heyne ex Roth.

Family - Asclepiadaceae

### **Names in different languages:**

Hindi name - Maruvabel, Chinhaur, Safed Nishoth

English name - White Nishoth

Marathi name - Morvel

Malayalam name - Perumkurumba

Kannada name - Koratige hambu, Halukaratige

Oriya name - Murva, Murga

Tamil name - Perunkurinjan

Telugu name - Penujittu, Chagaveru

Urdu name - Turbud safed

Nepali name - Bahuni Lahra

### **Sanskrit Synonyms:**

Moorva, Murva - The roots are strong from which the bow string used to be made

Tiktavalli - The taste of the plant is bitter

Piluparnika, Snigdhaparni, Madhusrava, Madhulika, Gokarni

Murangika, Devi, Devashreni, Pruthak Twacha, Madhurasa, Atirasa, Peeluparnika, Triparni, Morata, Snigdharasa, Tejani, Sruva, Gokarni, Gopavalli

**Marsdenia tenacissima Morphology:** Murva is an extensive twining shrub which is found all over India having milky exudate. The leaf is velvety in nature and 5 - 7 inch in length and 3 - 5 inch in width. The flowers are greenish yellow. The fruits grow up to 5 inch long. The roots are cylindrical, yellow colored outside with dark brown patches and slightly bitter in taste.

**Moorva medicinal properties:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Guru (Heavy for digestion), Ruksha (Dry in nature)

Veerya (Potency) - Ushna (Hot)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Tridosahara (Reduces all the three doshas)

**Part used** - Root

**Dosage** -

50 to 100 ml of decoction and 3 to 5 g of root powder

**Chemical constituents:**

The bark of the shoots contains milky juice containing caoutchouc. The root and seed contain pregnane glycosides.

The stem of the plant contains glycoside called tenacissoides A

- E. Apart from these, the plant also contains Marsdenin, D - Cymarose, Asclepobiose, D - Canarose and Cissogenin.

### **Uses of Murva:**

- The paste of the murva root is applied over the area affected with skin diseases.
- The decoction of Marsdenia tenacissima is given in a dose of 50 - 60 ml to treat intestinal worm, lack of appetite, hyperacidity and jaundice.
- The fresh juice of the plant is consumed regularly as blood purifier.
- Cold infusion or the decoction of the root is given in a dose of 40 - 50 ml in condition related to deficiency of breast milk.
- The decoction of the root is given in a dose of 30 - 40 ml to treat diabetes and improve the strength of cardiac muscles.
- The exudate from the root is consumed to treat constipation.

मूर्वा स्वादुः स्वादुपाका गुरुष्णा तिक्तका सरा ।

जयेत् त्रिदोषकुष्ठास्रमेदोमेहवमिज्वरान् ॥

मुखशोषं कृमिकण्डूतृष्णापितास्रहृद्दान् ।

मूर्वाकन्दस्तु कृमिहृत् विषघ्नो गुदकीलहा ॥ कै.नि



मूर्वा स्वादुरसा चोष्णा हृद्रोगकफवातजित् ।

कुष्ठकण्डूवमीमेहविषमज्वरनाशिनी ॥ध.नि

मूर्वा सरा गुरुः स्वादुस्तिका पितास्रमेहनुत् ।

त्रिदोषतृष्णाहृद्रोगकण्डूकुष्ठज्वरापहा ॥ भा.प्र.

मूर्वाऽभावे त्वचो ग्राह्या जिङ्गिनीप्रभवा बुधैः ॥ भा.प्र

मूर्वा तिक्त कषायोष्णा हृद्रोगकफवातहृत् ।

वमिप्रमेहकुष्ठारिर्विषमज्वरहारिणी ॥रा.नि.

mūrvā svāduḥ svādupākā gurūṣṇā tiktakā sarā |

jayet tridoṣakuṣṭhāsramedomehavamijvarān ||

mukhaśoṣaṃ kṛmikaṇḍūtrṣṇāpittāsrahr̥dgadān |

mūrvākandastu kṛmihṛt viṣaghno gudakīlahā || kai.ni

mūrvā svādurasā coṣṇā hṛdrogakaphavātajit |

kuṣṭhakaṇḍūvamīmehaviṣamajvaranāśinī ||dha.ni

mūrvā sarā guruḥ svādustiktā pittāsramehanut |

tridoṣatrṣṇāhṛdrogakaṇḍūkuṣṭhajvarāpahā || Bhavaprakasha.

mūrvā'bhāve tvaco grāhyā jiṅginīprabhavā budhaiḥ ||

Bhavaprakasha

mūrvā tikta kaṣāyoṣṇā hṛdrogakaphavātahṛt |

vamipramehakuṣṭhārirviṣamajvarahāriṇī ||rā.ni.

## **Indications of Moorva as per Ayurveda:**

Kushta - skin diseases

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Meda - obesity, cholesterol

Meha - diabetes, urinary tract disorders

Vami - vomiting

Jwara - fever

Mukhashosha - dryness of mouth

Krumi - worm infestation

Kandu - itching, pruritis

Trushna - excessive thirst

Pittasra - Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Hrudgada - Cardiac disorders

Shosha - emaciation, wasting

### **Kanda - rhizome is indicated in**

Krumi - worm infestation

Gudakeela - Arsha - haemorrhoids

Visha - Toxic conditions, poisoning

**Adverse effect:** People suffering from Irritable Bowel Syndrome and diarrhea should not consume the root of Murva plant as it may worsen the condition.

## **Ayurvedic medicines containing Murva:**

**Lodhrasava:** It is a formulation in liquid form given for the treatment of leucoderma, anemia, obesity, piles and digestive disorders.

**Mahayogaraja guggulu:** This medicine is in tablet form and is useful to treat joint diseases, skin diseases, piles, sprue, diabetes, **gout**, fistula, bloating, emaciation, low digestion power, asthma, cold, cough, anorexia, male and female infertility etc.

**Vasishta rasayana:** This formulation is in lehya form and can be given to treat cough, cold and such other respiratory tract infections.

**Ayaskriti:** Ayaskriti is a liquid Ayurvedic medicine. It is mainly used in anemia, weight loss therapy, skin diseases, indigestion etc.

**Sri Gopala Taila:** It is an oil useful for the treatment of various neuro - muscular condition, improve the memory etc.

**Kumaryasava:** Kumaryasava is a liquid Ayurvedic medicine used in the treatment of gastritis, urinary tract disorders, abdominal distention, bloating, respiratory conditions like cough, cold, wheezing, piles etc.

**Maha manjishtadi kashaya:** This medicine is in decoction form useful to treat skin diseases, gout, syphilis, non - healing ulcers etc.

**Kottakkal mahatiktaka lepa:** This is a proprietary medicine useful to treat non healing wounds and skin diseases such as eczema.

### **Research articles about Marsdenia tenacissima:**

**Anti - angiogenic effect:** In the present study, the effects of *M. tenacissima* extract (MTE) on human umbilical vein endothelial cell (HUVEC) proliferation, migration and capillary - like tube formation were investigated *in vitro* and using the chick embryo chorioallantoic membrane (CAM) assay *in vivo*. It was observed that MTE inhibited the proliferation of HUVECs by blocking the cell cycle progression from G1 to S. In addition, MTE inhibited the migration and tube formation of HUVECs. MTE treatment decreased the VEGF - A expression in human hepatoma cells (HepG2), as well as the expression of VEGF - A and VEGF receptor (VEGFR) - 2 in HUVECs. MTE exposure in the CAM was able to reduce the formation of blood vessels in chick embryos.

**Anti - tumor action:** The article reviewed the progress in the research of antitumor activities and mechanisms of Marsdenia tenacissima. Its origin producing area and antitumor constituents were analyzed. The herb possessed extensive antitumor effects in experimental and clinical applications. The present study aimed at evaluation of anti - hyperglycemic potential of two traditionally used plants - Marsdenia tenacissima, Sphaeranthus indicus, by in vitro methods. Both

the plants possess hypoglycemic activity though the activity was more in *Marsdenia tenacisima*. The results of the study revealed that the hypoglycemic activity is more prominent in neutral and basic media as compared to acidic medium.

### **Substitute for Moorva:**

In case of unavailability of Moorva, Twak (Cinnamon) or Jingini are used in its place.

### **Classical categorization:**

Charaka - Sthanya sodhana

Sushruta - Aragvadhadi, Patoladi

Vagbhata - Aragvadhadi, Patoladi

Bhavaprakasha - Guduchyadi varga

Dhanvantari Nighantu - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varg

Raja Nighantu - Guduchyadi varga

Shodala Nighantu - Guduchyadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Gentianales

Family: Apocynaceae

Subfamily: Asclepiadoide

Genus: *Marsdenia*

## **61. Clearing Nut: Strychnos potatorum: Uses, Research, Side Effects**

Kataka is called clearing nut because it purifies water instantly.

Botanically, Strychnos potatorum, is a herb well known in Ayurvedic treatment of eye diseases, skin diseases, anorexia, diarrhea and renal calculi.

Latin name - Strychnos potatorum Linn.

Family - Loganiaceae

### **Names in different languages:**

Hindi name - Nirmali

English name - Clearing nut

Bengali name - Nirmali

Kannada name - Chetamperalu

Punjabi name - Nirmali

Tamil name - Tetanakottai

Telugu name - Chillachettu

### **Sanskrit synonyms:**

Ambu Prasadana Phala, Nirmali - Purifies the water

NetraVikara Jit, Chakshushya - Benefits the eyes

Payaha prasadi - cleanses the water

Tiktaphala - bitter taste

Chedaniya, Kata, Kataphala,

### **Morphology:**

Kataka is a small, bushy tree found in South India and Eastern

India. The tree has blackish trunk which is usually found cracked. The flowers are white, having good fragrance and found in clusters. The fruits are round with 0.5 - 0.7 inch in diameter and the seeds are hard, whitish colored.

**Properties:**

Rasa (Taste) - Madhura (Sweet), Kashaya (Astringent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Vishada

Veerya (Potency) - Sheeta (Cold),

Vipaka - Madhura (Undergoes sweet taste after digestion)

**Effect on Tridosha:** Kaphavata shamaka (reduces vitiated kapha and vata dosha)

Prabhava (Special effect) - Chakshushya (Improves the vision)

**Part used** - Seed

**Dosage** - 1 - 3 g of seed powder

**Chemical constituents of Strychnos potatorum**

The seeds of kataka plant contain Mannogalactan. The seeds, leaves and trunk bark contain diabolin and acetyldiabolin. The seeds also contain brucine, strychnine, novacine, icajine, oleanolic acid and its glycoside. Leaves and bark gave isomotirol, stigmasterol, campesterol and sitosterol.

कतं कतफलं काछंश्लक्षणं वारिप्रसादनम् ||

तोयप्रसादनफलं चक्षुष्यं लेखनात्मकम् ।

कतकं तुवरं तिक्तं विशदं शीतलं लघु ॥

विकाशि मधुरं छेदि चक्षुष्यं कफवातनुत् ।

तृष्णां दाहं विषं गुल्मं हन्ति तोयमलापहम् ॥

शीतलं तत्फलं बालं रक्तपित्तहरं परम् ।

तृणमोहविषनुद्वातकरं चक्षुष्यमुत्तमम् ॥

मध्यमं श्लेष्मपित्तघ्नं रुचिकृद् दुर्जरं परम् ।

तस्यैव च फलं पक्वं वातकृन्मेहनाशनम् ॥

सपिच्छिलं छर्दिकरं श्लेष्मपित्तप्रसेककृत् ।

शोफपाण्डुप्रतिश्यायकामलागरनाशनम् ॥

कतकस्य च मूलं तु सर्वकुष्ठव्रणप्रणुत् । कैयदेवनिघण्टु - ओषधिवर्ग

कतकं छेदनीयश्च कतं कतफलं मतम् ।

अम्बुप्रसादनफलं श्लक्ष्णं नेत्रविकारजित् ॥

कतकं शीतलं प्राहुस्तृष्णाविषविनाशनम् ।

नेत्रोत्थरोगविध्वंसि विधिनाऽञ्जनयोगतः ॥

कतकस्य फलं तिक्तं चक्षुष्यं पित्तलं मृदु ।

वारिप्रसादनं कृच्छ्रशर्करामशमरीं जयेत् ॥ धन्वन्तरिनिघण्टु -

चन्दनादिवर्ग



पयःप्रसादिः कतकः कतकं तत्फलं च तत् ।

कतकस्य फलं नेत्र्यं जलनिर्मलताकरम् ।

वातश्लेष्महरं शीतं मधुरं तुवरं गुरु ॥ भावप्रकाश - आम्रादिफलवर्ग

कतकोऽम्बुप्रसादश्च कतस्तिकफलस्तथा ।

रुच्यस्तु छेदनीयश्च ज्ञेयो गुडफलः स्मृतः ।

प्रोक्तः कतफलस्तिकमरीचश्च नवाहयः ॥

कतकः कटुतिकोष्णश्चक्षुष्यः कृमिदोषनुत् ।

रुचिकृच्छूलदोषघ्नो बीजमम्बुप्रसादनः ॥ राजनिघण्टु - आम्रादिवर्ग

कतकं शोधनं छेदि शीर्षनेत्रविकारहृत् ।

जलप्रसादनं भेदि काचो दृष्टिकृदञ्जनात् ॥ सोढलनिघण्टु - चन्दनादिवर्ग

कतं कतफलं काछंक्षुष्यं वारिप्रसादनम् ॥

तोयप्रसादनफलं चक्षुष्यं लेखनात्मकम् ।

कतकं तुवरं तिकं विशदं शीतलं लघु ॥

विकाशि मधुरं छेदि चक्षुष्यं कफवातनुत् ।

तृष्णां दाहं विषं गुल्मं हन्ति तोयमलापहम् ॥

शीतलं तत्फलं बालं रक्तपित्तहरं परम् ।

तृणमोहविषनुद्वातकरं चक्षुष्यमुत्तमम् ॥

मध्यमं श्लेष्मपित्तघ्नं रुचिकृद् दुर्जरं परम् ।  
तस्यैव च फलं पक्वं वातकृन्मेहनाशनम् ॥  
सपिच्छिलं छर्दिकरं श्लेष्मपित्तप्रसेककृत् ।  
शोफपाण्डुप्रतिशयायकामलागरनाशनम् ॥  
कतकस्य च मूलं तु सर्वकुष्ठव्रणप्रणुत् । कै.नि.  
कतकं शीतलं प्राहुस्तृष्णाविषविनाशनम् ।  
नेत्रोत्थरोगविध्वंसि विधिनाऽञ्जनयोगतः ॥  
कतकस्य फलं तिक्तं चक्षुष्यं पित्तलं मृदु ।  
वारिप्रसादनं कृच्छ्रशर्करामशमरीं जयेत् ॥ ध.नि.  
कतकस्य फलं नेत्र्यं जलनिर्मलताकरम् ।  
वातश्लेष्महरं शीतं मधुरं तुवरं गुरु ॥ भा.प्र.  
रुच्यस्तु छेदनीयश्च ज्ञेयो गुडफलः स्मृतः ।  
प्रोक्तः कतफलस्तिक्तमरीचश्च नवाह्वयः ॥  
कतकः कटुतिक्तोष्णश्चक्षुष्यः कृमिदोषनुत् ।  
रुचिकृच्छूलदोषघ्नो बीजमम्बुप्रसादनः ॥ रा.नि.  
कतकं शोधनं छेदि शीर्षनेत्रविकारहृत् ।

जलप्रसादनं भेदि काचो दृष्टिकृदञ्जनात् ॥ सो.नि.

kataṃ kataphalaṃ kāchaṃślakṣṇaṃ vāriprasādanam ॥  
toyaprasādanaphalaṃ cakṣuṣyaṃ lekhanātmakam |  
katakam tuvaraṃ tiktaṃ viśadaṃ śītaṃ laghu ॥  
vikāśi madhuraṃ chedi cakṣuṣyaṃ kaphavātanut |  
tr̥ṣṇāṃ dāhaṃ viṣaṃ gulmaṃ hanti toyamalāpaham ॥  
śītaṃ tatphalaṃ bālaṃ raktapittaharaṃ param |  
tr̥ṣṇamohaviṣanudvātakaraṃ cakṣuṣyamuttamam ॥  
madhyamaṃ śleṣmapittaghnaṃ rucikṛd durjaraṃ param |  
tasyaiva ca phalaṃ pakvaṃ vātakṛṇmehaṇāśanam ॥  
sapicchilaṃ chardikaraṃ śleṣmapittaprasekakṛt |  
śophapāṇḍupratiśyāyakāmalāgaranāśanam ॥  
katakasya ca mūlaṃ tu sarvakuṣṭhavraṇapraṇut |  
kaiyadevanighaṇṭu - oṣadhivarga  
katakam chedanīyaśca kataṃ kataphalaṃ matam |  
ambuprasādanaphalaṃ ślakṣṇaṃ netravigārajit ॥  
katakam śītaṃ prāhustr̥ṣṇāviṣavināśanam |  
netrottharogavidhvaṃsi vidhinā'ñjanayogataḥ ॥  
katakasya phalaṃ tiktaṃ cakṣuṣyaṃ pittalaṃ mṛdu |

vāriprasādanam̐ kṛcchraśarkarāmaśmarīm̐ jayet ||  
dhanvantarinighaṇṭu - candanādivarga  
payah̐prasādiḥ katakaḥ katakam̐ tatphalam̐ ca tat |  
katakasya phalam̐ netryam̐ jalanirmalatākaram |  
vātaśleşmaharam̐ śītam̐ madhuram̐ tuvaram̐ guru ||  
bhāvaprakāśa - āmrādiphalaavarga

katako'mbuprasādaśca katastiktaphalastathā |  
rucyastu chedanīyaśca jñeyo guḍaphalaḥ smṛtaḥ |  
proktaḥ kataphalastiktamarīcaśca navāhvayaḥ ||  
katakaḥ kaṭutiktoṣṇaścakṣuṣyaḥ kṛmidoṣanut |  
rucikṛcchūladoṣaghno bījamambuprasādanaḥ || rājanighaṇṭu -  
āmrādivarga

katakam̐ śodhanam̐ chedi śīrṣanetravikārahṛt |  
jalaprasādanam̐ bhedi kāco drṣṭikṛdañjanāt || soḍhalanighaṇṭu  
- candanādivarga

kataḥ kataphalam̐ kāchaḥślakṣṇam̐ vāriprasādanam̐ ||  
toyaprasādanaphalam̐ cakṣuṣyam̐ lekhanātmakam̐ |  
katakam̐ tuvaram̐ tiktaḥ viśadam̐ śītalam̐ laghu ||  
vikāśi madhuram̐ chedi cakṣuṣyam̐ kaphavātanut |  
trṣṇām̐ dāham̐ viṣam̐ gulmam̐ hanti toyamalāpaham̐ ||  
śītalam̐ tatphalam̐ bālam̐ raktapittaharam̐ param̐ |  
trṇmohaviṣanudvātakaram̐ cakṣuṣyamuttamam̐ ||  
madhyamam̐ śleşmapittaghnam̐ rucikṛd durjaram̐ param̐ |

tasyaiva ca phalaṃ pakvaṃ vātakṛṇmehanāśanam ||  
sopicchilaṃ chardikaraṃ śleṣmapittaprasekākṛt |  
śophapāṇḍupratiśyāyakāmalāgaranāśanam ||  
katakasya ca mūlaṃ tu sarvakuṣṭhavraṇapraṇut | kai.ni.  
katakaṃ śītaṃ prāhustrṣṇāviṣavināśanam |  
netrottharogavidhvamsi vidhinā'ñjanayogataḥ ||  
katakasya phalaṃ tiktaṃ cakṣuṣyaṃ pittalaṃ mṛdu |  
vāriprasādanaṃ kṛcchraśarkarāmaśmarīṃ jayet || dha.ni.  
katakasya phalaṃ netryaṃ jalanirmalatākaram |  
vātaśleṣmaharaṃ śītaṃ madhuraṃ tuvaraṃ guru ||  
Bhavaprakasha.

rucyastu chedanīyaśca jñeyo guḍaphalaḥ smṛtaḥ |  
proktaḥ kataphalastiktamarīcaśca navāhvayaḥ ||  
katakaḥ kaṭutiktoṣṇaścakṣuṣyaḥ kṛmidoṣanut |  
rucikṛcchūladoṣaghno bījamambuprasādanaḥ || rā.ni.  
katakaṃ śodhanaṃ chedi śīrṣanetravikārahṛt |  
jalaprasādanaṃ bhedi kāco drṣṭikṛdañjanāt || so.ni.

### **Uses of Kataka:**

- The seeds of kataka are put in water which contains dirt. The seeds will settle the dirt to the bottom of the vessel thereby giving a clear supernatant surface.

- The seeds of *Strychnos potatorum* are rubbed in a clean stone and the paste is applied as collyrium (Anjana) to treat various eye diseases.
- The powder of the seed is mixed with appropriate quantity of honey and applied over wound for better healing of it.
- The paste of the root of *Strychnos potatorum* is applied over the skin area affected with eczema.
- The powder of kataka seeds is given in a dose of 3 - 4 g to treat indigestion and diarrhea.
- The decoction of the seeds is given in a dose of 40 - 50 ml to treat renal calculi and difficulty in micturition.
- The decoction of the seeds of kataka with *Curcuma longa* (Haridra) helps in reducing and controlling the blood sugar level.
- The decoction of the seed of kataka is useful to treat cases of poisoning.
- The powder of the seed with honey or the decoction of the seed is consumed in a dose of 40 - 0 ml to treat jaundice, rhinitis and swelling due to anemia.

### **Medicinal uses as per Ayurveda:**

Vikashi - Loosens joints (a quality of poison and alcohol)

Chedi - laxative

Chakshushya - useful in improving eye sight

### **Indicated in -**

Trushna - Excessive thirst

Daha - Burning sensation

Visha - toxic conditions

Gulma - abdominal tumor, distension

### **Unripe fruit of clearing nut -**

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Trushna - excessive thirst

Moha - delusion

Visha - Toxic conditions, poisoning

Vatacara - increases VataDosha

Chakshushya - improves vision, good for eyes, useful in eye disorders

### **Moderately ripe Kataka fruit -**

Balances Kapha Pitta

Ruchikrut - improves taste, relieves anorexia

Durjara - hard to undergo digestion

### **Ripe fruit -**

Vatakrut - increases VataDosha

Chardikara - causes vomiting

Picchila - Sticky, Slimy

Indicated in

Meha - diabetes, urinary tract disorders

Shopha - inflammation

Pandu - anemia

Pratishyaya - runny nose, allergic rhinitis

Kamala - Jaundice, Liver diseases

Garavisha - chronic poisoning

**Kataka Root** is useful in

skin diseases and non healing wounds

**Adverse effects:** Excessive use of Kataka (more than 5 g) may cause nausea and vomiting.

**Ayurvedic medicines containing Kataka as ingredient:**

**Jambunishadi kwath:** Jambunishadi Kwath is a proprietary Ayurvedic medicine used for the treatment of diabetes.

**Niruryadi gulika:** Niruryadi Gulika is an Ayurvedic medicine used in treating diabetes and its complications. It is in tablet form.

**Mathala rasayana:** Mathala Rasayanam is an Ayurvedic medicine in lehya form, used in digestive and respiratory diseases.

**Katakadiradi kashaya:** Katakakhadiradi Kashayam is an Ayurvedic medicine used in treating diabetes and its complications like neuropathy. It is in herbal decoction form.

**Dashamoolarishta:** Dashmoolarishta is a liquid Ayurveda medicine, used in the treatment of anemia, after delivery care of mother, cold, cough, digestive disorders etc.



**Coolmelon syrup:** Coolmelon Syrup is a herbal syrup that cools the body heat reduces burning sensation.

**Research articles related to *Strychnos potatorum*:**

**Anti - arthritic action:** Both SPP and SPE at the specified dose level of 200 mg/kg, p.o. showed reduction in rat paw edema volume and it could significantly normalize the hematological and biochemical abnormalities in adjuvant induced arthritic rats in both developing and developed phases of FCA induced arthritis. Further the histopathological and radiological studies confirmed the anti - arthritic activity of SPP and SPE.

**Anti - inflammatory action:** The anti - inflammatory effect of seed powder [SPP I (100 mg/kg) and II (200 mg/kg) p.o.] and aqueous extract [SPE I (100 mg/kg) and II (200 mg/kg) p.o.] of *Strychnos potatorum*. Linn (Loganiaceae) seeds was studied in carrageenan - induced hind paw edema and cotton pellet granuloma models. Both SPP (I and II) and SPE (I and II) exhibited anti - inflammatory activity in acute and sub - acute inflammatory models, whereas SPE - II was found to possess maximum activity and its effect was also comparable with the standard drug diclofenac sodium (5 mg/kg, p.o.).

**Anti - urolithiatic action:** The pathogenesis of calcium oxalate stone formation is a multistep process and includes

nucleation, crystal growth and crystal aggregation. The percent inhibition of turbidity increase with concentration of extract and methanol extract of seed showed maximum dissolution of calcium oxalate stones in vitro. The result of the present study proved that methanol extract of seed of *S. potatorum* L.f. can be used for the further pharmacopeia preparations.

### **Classical categorization:**

Charaka - Vishagna mahakashaya

Sushruta - Parushakadi gana

Vagbhata - Parushakadi gana

Bhavaprakasha - Amradi phala varga

Dhanvantari Nighantu - Chandanadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Shodala Nighantu - Chandanadi varga

Raja Nighantu - Chandanadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Gentianales

Family: Loganiaceae

Genus: *Strychnos*

Species: *S. potatorum*

## **62. Lasoda: Cordia dichotoma: Benefits, Remedies, Research, Side Effects**

Shleshmataka - Cordia dichotoma is an Ayurvedic plant, used for the treatment of cough, asthma, skin diseases, fever, diarrhea, intestinal worms and wounds.

Latin name - Cordia dichotoma Forst.

Family - Boraginaceae

### **Names in different languages:**

Hindi name - Lasoda, Dela, Tenti, Gunda

English name - Sebesten, Glue berry, Pink pearl tree, Bird Lime tree, Fragrant manjack, snotty gobbles, glue berry, anonang, pink pearl, bird lime tree, Indian cherry

Arabic name - Dilk

Bengali name - Bahanari

Punjabi name - Lasuda

Gujarathi name - Vadagunda

Marathi name - Bhonkar, Bhokar

Nepalese name - Lasura

Telugu name - Nakkera

Tamil name - Vidi

Name in the middle east - Bambar tree.



**Synonyms:**

Shleshmataka - Expels the Phlegm from the body

Bahubar - Cures many diseases

Shelu - Gives life to men

Uddalaka - Removes the diseases

Gandha pushpa - The flowers have good fragrance

Shapita, Dvijakutsita, karbudara, Bahudara, Seluka,

Bahuvaraka, Muktapphala, Vasanta kusuma, Shilu, Lekhasara,

Sutapadapa, Lekhasataka, Bhutavrukshaka, Bhutadruma,

Gandhapushpa

**Morphology:**

Lasoda is a tree growing to a height of 10 - 15 m and is seen all over the plains of India. The bark of the stem and trunk is brown. The leaf of the tree looks slimy and smooth. The fruits

are whitish in color and bloom during the spring. The fruits are oval, sweet in taste and contain a solitary seed.



**Lasoda Slesmatak - medicinal properties:**

Rasa (Taste) - Bark is Kashaya (Astringent), Tikta (Bitter). Fruit is Madhura (Sweet)

Guna (Qualities) - Snigdha (Slimy), Guru (Heavy),

Vipaka - Bark - Katu (Undergoes Pungent taste after digestion),  
Fruit - Madhura (Sweet)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Fruit is Pitta vata shamaka (reduces vitiated pitta and vata dosha), Bark is Kapha pitta shamaka (reduces kapha and pitta dosha)

**Part used** - Fruit and Bark

**Dosage:**

Decoction of bark - 50 to 70 ml

Fruit juice - 15 - 20 ml

It is made into pickles, called locally in Hindi as Gunda achar.

Its fruits are eaten raw.

**Cordia dichotoma chemical constituents:**

The leaves of the plant contain B - sitosteryl - 3B - glucopyranoside, chlorophyll and B sitosterol. The twig of the plant has linolenoylglycerol. The plant also has linolenic acid and allantion.



**Uses of Shleshmataka:**

- The immature fruits are made into pickle and also used as vegetable fodder. The leaves also yield good fodder.

- The decoction of the bark is used for cleansing fresh wounds and wound due to insect bite.
- The decoction of the bark of Cordia dichotoma is given in a dose of 40 - 50 ml to treat diarrhea, irritable bowel syndrome and intestinal worms.
- The juice of the fresh fruit is given in a dose of 15 - 20 ml to treat burning sensation of the body and dryness of the body.
- The juice of the fruit is also useful to remove excess phlegm from the lungs and treat cough, asthma.
- The cold infusion of the bark or root is given in a dose of 40 - 50 ml to treat burning micturition and difficulty in micturition.
- The fruit is consumed to improve the digestive power and indigestion.
- The paste of the root is applied over the area affected with skin diseases like eczema and ringworm.
- The fresh juice of the fruit is known to increase the sperm count in male.
- The decoction of the bark is consumed regularly to improve the general body strength and remove fatigue.

शेलुः केश्यः सत्तिकोष्णो मधुरस्तुवरः कटुः ॥

विषवीसर्पविस्फोटव्रणपित्तकफप्रणुत् ।

फलं तु मधुरं तिक्तं शीतलं वातलं लघु ॥

कषायं कटुकं पाके ग्राहि पित्तकफास्रजित् ।

तत् पक्वं मधुरं स्निग्धं श्लेष्मलं शीतलं गुरु ॥कै.नि.

श्लेष्मातको हिमः स्वादुः स्याद्रूक्षः पिच्छिलः शुचिः।ध.नि.

बहुवारो विषस्फोटव्रणवीसर्पकुष्ठनुत् ।

मधुरस्तुवरस्तिक्तः केश्यश्च कफपित्तहृत् ॥

फलमामन्तु विष्टम्भि रुक्षं पित्तकफास्रजित् ।

तत्पक्वं मधुरं स्निग्धं श्लेष्मलं शीतलं गुरु ॥ भा.प्र

श्लेष्मातकः कटुहिमो मधुरः कषायः स्वादुश्च पाचनकरः क्रिमिशूलहारी ।

आमास्रदोषमलरोधबहुव्रणार्तिविस्फोटशान्तिकरणः कफकारकश्च ॥ रा.नि

śeluḥ keśyaḥ satiktoṣṇo madhurastuvaraḥ kaṭuḥ ॥

viṣavīsarṇapavisphoṭavraṇapittakaphapraṇut |

phalaṃ tu madhuraṃ tiktam śītalam vātalam laghu ॥

kaṣāyaṃ kaṭukam pāke grāhi pittakaphāsrajit |

tat pakvaṃ madhuraṃ snigdham śleṣmalam śītalam guru

॥kai.ni.

śleṣmātako himaḥ svāduḥ syādrūkṣaḥ picchilaḥ śuciḥ|dha.ni.

bahuvāro viṣasphoṭavraṇavīsarṇakuṣṭhanut |

madhurastuvarastiktaḥ keśyaśca kaphapittahr̥t ॥



phalamāmantu viṣṭambhi rūkṣaṃ pittakaphāsrajit |  
tatpakvaṃ madhuraṃ snigdhaṃ śleṣmalaṃ śītaṃ guru ||  
Bhavaprakasha  
śleṣmātaḥ kaṭuhimo madhuraḥ kaṣāyaḥ svāduśca  
pācanakaraḥ krimiśūlahārī |  
āmāsradoṣamalarodhabahuvraṇārtivisphoṭaśāntikaraṇaḥ  
kaphakārakaśca || rā.ni

### **Lasoda uses as per Ayurveda:**

#### **Bark**

Keshya - Improves hair strength, promotes hair growth

Balances Kapha and Pitta Dosha

Indicated in -

Visha - Toxic conditions, poisoning Visarpa - herpes

Visphota - boils, blisters

Vrana - Ulcers, wounds

#### **Unripe Fruit:**

Sheetala - coolant

Viṣṭambi - causes constipation

Vatala - increases Vata Dosha

Kashaya - astringent

Grahi - absorbent, useful in diarrhea, IBS

Balances Kapha and Pitta Dosha

## **Ripe fruit:**

Snigdha - unctuous, oily

Shleshmala - Increases Kapha Dosha

Sheetala - coolant

Guru - heavy to digest

**Adverse effect:** No adverse effect is known or reported after the use of Shleshmataka

## **Formulations containing Shleshmataka:**

**Gojihwadi kashaya:** This is a medicine in decoction form useful to treat fever, cough, bronchitis, rhinitis etc.

**Cofnil plus syrup:** It is a proprietary Ayurvedic medicine useful to treat cough and allergic rhinitis.

**Virataradi kashaya:** It is a medicine in decoction form useful to treat urinary calculi, difficulty in micturition and all ailments due to vata disorders.

**P - KOF syrup:** It is a proprietary ayurvedic medicine useful to treat cough, cold and allergic conditions.

## **Research articles related to Cordia dichotoma:**

**Anti - microbial and Anti - fungal action:** Antibacterial activity of methanol and butanol extracts of the bark was carried out against two gram negative bacteria (*Escherichia coli*, and *Pseudomonas aeruginosa*) and two Gram positive bacteria (*St. pyogenes* and *Staphylococcus aureus*). The antifungal activity of the extracts was carried out against three common

pathogenic fungi (*Aspergillus niger*, *A.clavatus*, and *Candida albicans*). The extracts showed remarkable inhibition of zone of bacterial growth and fungal growth and the results obtained were comparable with that of standards drugs against the organisms tested. The activity of extracts increased linearly with increase in concentration of extract (mg/ml). The results showed the antibacterial and antifungal activity against the organisms tested.

**Wound healing action:** The extraction of fruits of *Cordia dichotoma* Forst. f. was carried out using ethanol. This extract was further fractionated using petroleum ether (40 - 60%), solvent ether, ethylacetate, butanol and butanone in succession. These fractions were screened for wound healing activity using three different models, viz. excision, incision and dead space wound models on either sex of albino rats of Wistar strain. All the fractions showed significant ( $P < 0.001$ ) activity on the chosen models.

**Anti - diabetic action:** This study was designed to investigate *in vivo* hypoglycemic and anti - diabetic potential of methanol extract of fruits of *Cordia dichotoma* in glucose loaded animals and alloxan induced diabetic animals. In both the models *Cordia dichotoma* reduced the blood glucose level when compared to diabetic control group and exert a significant hypoglycemic and anti - diabetic activity.

## **Classical categorization:**

Charaka - Vishagna

Sushruta - Phala varga

Bhavaprakasha - Amradi phala varga

Dhanvantari Nighantu - Amradi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Amradi varga

Shodala Nighantu - Amradi varga

## **Scientific classification**

Kingdom: Plantae

Order: (unplaced)

Family: Boraginaceae

Genus: Cordia

Species: *C. dichotoma*

### **63. Trayamana: Gentiana kurroo: Benefits, Remedies, Research, Side Effects**

Trayamana - Gentiana kurroo is an Ayurvedic herb useful in the treatment of wound, skin diseases, dysmenorrhea, fever and liver disorders etc.

Latin name - Gentiana kurroo Royale

Family - Gentianaceae

#### **Names in different languages:**

Hindi name - Kadu

English name - Indian gentian, Himalayan Gentian,

Bengali name - Karu, Koutki, chireta, kadu, trayaman

Gujarathi name - Pakanbas

Kannada name - Karadihanni, kiriyatu

Kashmiri name - Kadu

Marathi name - Pakanbhed

Malayalam name - Trayamana, kiriyat

Punjabi name - Nilkanth, Kamalphool

Tamil name - Kamantirai, kampantirai, nilavempu, nilavimbu

Telugu name - Kalu kranuga, Buroni, nelavemu

Urdu name - Nilkanth

Manipuri name - Kiryet



### **Sanskrit Synonyms -**

Trayanti, Grirjanuja, Girisanuja, Palanika, Ardra,

Phalini - bears fruits

Kritatrana, Varshika, Trana, Sunamika, Sukama

Devabala, Rakshani, Baladeva, Balabhadra, Mangalya -  
auspicious

Bhayanashini - relieves the fear of disease

### **Morphology:**

Trayamana is a small herb growing in the Himalyan range and in the hilly regions of India. The plant can be found growing to a height of 1 foot in between the stones and cliffs. The flowers are dark blue to purple color and the fruits are 0.5 to 0.75 inch in diameter. The flowers are seen after the rainy season. The

root of the plant is brown or ash colored.



### **Gentiana kurroo medicinal properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Root

### **Dosage -**

1 to 3 g of root powder

30 to 40 ml of decoction

### **Chemical constituents of Gentiana kurroo:**

The most important constituents of the herb are secoiridoid bitter compounds, amaro gentin and gentiopicroside, together with traces of swertiamarin and sweroside. The roots also

contain alkaloids, gentianine and gentioflavine, xanthenes, and bitter oligosaccharides, gentiobiose and gentianose. Amarogentin, gentiopicrin, swertiamarin, sioeroside (iridoid monoterpenes) are toxic constituents.

### **Uses of Trayaman:**

- The decoction of the root of Trayamana is used to treat fever and is considered as blood purifier and carminative.
- The decoction of the root of Gentiana kurroo is useful to treat leucoderma and syphilis.
- The powder of the root of the plant is given with honey in a dose of 3 to 5 g to treat cases of poisoning.
- The paste of the powder is applied over area affected with alopecia as part of treatment.
- The cold infusion of the root is given to treat indigestion and piles.
- The root powder is substituted with the root of Katuki (P.kurroo) and used for purgation.
- In cases of hemorrhage from small vessels, the medicated ghee prepared from the juice of Trayamana is given with honey.
- Cold infusion of the root is given to treat difficulty in micturition and dysmenorrhea.

बलभद्रा कृतत्राणा बलदेवादिसानुजा ।



मङ्गल्या वार्षिका त्राणा सुहृत्राणा सुनामिका ॥

त्रायन्ती तुवरा तित्ता सरा पित्तकफापहा ।

ज्वरद्रोगगुल्मार्शःभ्रमशूलविषप्रणुत् ॥ कैयदेवनिघण्टु - ओषधिवर्ग

त्रायमाणा कृतत्राणा त्रायन्ती त्रायमाणका ।

बलदेवा बलभद्रा वार्षिकी गिरिजानुजा ॥

त्रायन्ती कफपित्तास्रगुल्मज्वरहरा मता ।

उष्णा कटु कषाया च सूतिकाशूलनाशिनी ॥ धन्वन्तरिनिघण्टु -

गुडूच्यादिवर्ग

बलभद्रा त्रायमाणा त्रायन्ती गिरिसानुजा ।

त्रायन्ती तुवरा तित्ता सरा पित्तकफापहा ।

ज्वरहृद्रोगगुल्मार्शोभ्रमशूलविषप्रणुत् ॥ भावप्रकाश - गुडूच्यादिवर्ग

त्रायमाणा कृतत्राणा त्रायन्ती त्रायमाणिका ।

बलभद्रा सुकामा च वार्षिकी गिरिजानुजा ॥

मङ्गल्याहा देवबला पालनी भयनाशिनी ।

अवनी रक्षणी त्राणा विज्ञेया षोडशाहया ॥

त्रायन्ती शीतमधुरा गुल्मज्वरकफास्रनुत् ।

भ्रमतृष्णाक्षयग्लानिविषच्छर्दिविनाशिनी ॥ राजनिघण्टु - पर्पटादिवर्ग

balabhadrā kṛtatrāṇā baladevādrisānujā |  
maṅgalyā vārṣikā trāṇā suhr̥trāṇā sunāmikā ||  
trāyantī tuvarā tiktā sarā pittakaphāpahā |  
jvaradrogagulmārśaḥbhramaśūlaviṣapraṇut ||  
kaiyadevanighaṇṭu - oṣadhivarga  
trāyamāṇā kṛtatrāṇā trāyantī trāyamāṇakā |  
baladevā balabhadrā vārṣikī girijānujā ||  
trāyantī kaphapittāsragulmajvaraharā matā |  
uṣṇā kaṭu kaṣāyā ca sūtikāśūlanāśinī || dhanvantarinighaṇṭu -  
guḍūcyādivarga  
balabhadrā trāyamāṇā trāyantī girisānujā |  
trāyantī tuvarā tiktā sarā pittakaphāpahā |  
jvarahṛdrogagulmārśobhramaśūlaviṣapraṇut || bhāvaprakāśa -  
guḍūcyādivarga  
trāyamāṇā kṛtatrāṇā trāyantī trāyamāṇikā |  
balabhadrā sukāmā ca vārṣikī girijānujā ||  
maṅgalyāhvā devabalā pālanī bhayanāśinī |  
avanī rakṣaṇī trāṇā vijñeyā ṣoḍaśāhvayā ||  
trāyantī śītamadhurā gulmajvarakaphāsranut |  
bhramatr̥ṣṇākṣayaglāniviṣacchardivināśinī || rājanighaṇṭu -  
parpaṭādivarga

## **Uses of Indian Gentian as per Ayurveda:**

Balances Pitta and Kapha Dosha

### **Indicated in -**

Jwara - fever

Hrudroga - cardiac disorders

Gulma - Tumors of the abdomen

Arsha - haemorrhoids

Bhrama - Delusion, Dizziness

Shoola - abdominal colic pain

Visha - Toxic conditions, poisoning

Sutika shoola - relieves abdominal pain of new mother after delivery.

Bhrama - Delusion, Dizziness

Trushna - excessive thirst

Kshaya - depletion of body tissues, weight loss, tuberculosis

Glani - fatigue, tiredness

Visha - Toxic conditions, poisoning

Chardi - Vomiting

**Adverse effect:** No known adverse effect is known or reported from the use of Trayamana.

### **Ayurvedic medicines containing Trayamana:**

**Ardraka Ghrita:** Ardraka ghritam is an Ayurvedic medicine, in herbal ghee form. It is used for preparatory procedure for

Panchakarma and also as medicine, used in the treatment of indigestion, chronic diarrhea, anorexia etc.

**Kottakkal Maha Tiktaka Lepa:** It is a proprietary medicine useful for the treatment of various skin diseases and non-healing ulcers.

**Patoladi choorna:** Patoladi Choornam is an Ayurvedic medicine in herbal powder form, used in the treatment of digestive, cardiac and liver disorders.

### **Research articles related to Gentiana kurroo:**

**Anti - inflammatory action:** Different plant extracts used in the current study were found to show an anti-inflammatory activity. As compared to control group the treated groups showed decrease in the edema formation after 4 hrs.

### **Classical categorization:**

Charaka - Kashaya skanda - astringent tasting group of herbs

Sushruta - Lakshadi gana

Dhanvantari Nighantu - Guduchyadi varga

Bhavaprakasha - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Parpatadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Gentianales

Family: Gentianaceae

Genus: Gentiana L.

## **64. Gojihva Onosma bracteatum: Uses, Remedies, Research, Side Effects**

Onosma bracteatum is an Ayurvedic plant used for the treatment of stomatitis, wound, jaundice, constipation, weakness of the cardiac muscles and rhinitis etc.

Latin name - Onosma bracteatum Wall.

Family - Boraginaeae

### **Names in different languages:**

Hindi name - Goaza, GanjabaGoziya

English name - Cow's tongue / Lisanussoar, Sedge herb

Arabic name - Taharatulsanulshur or Lasanulshur

Bengali name - Gaozaban, Dadishaka

Gujarathi name - Bhopathsri

Kannada name - Yettina Nalage

Marathi name - Pathari

Parasi name - Kalamarumi

Telugu name - Yedunalaka chattu

Urdu name - Gaozaban

### **Sanskrit Synonyms:**

Kharaparnini Kharapatra - The leaf is rough

Darpapatri - The leaf is thick

Darvika, Godhumika, Koshtamulika, Gobhi, Goli, Gojika,

### **Morphology:**

Gojihwa is a shrub growing to a height of 4 - 5 m growing in

the Himalayan range. The plant is covered with small hairs. The leaf is covered with small hair like structures with small nodules giving it a rough appearance like the tongue of cow; hence the name Gojihwa. The flowers are purple in color, thick and velvety.

**Properties:**

Rasa (Taste) - Madhura (Sweet), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Snigdha (Slimy)

Vipaka - Madhura (Undergoes sweet taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Vatapitta shamaka (reduces vitiated vataa and pitta dosha)

**Part used** - Leaf, Flower

**Dosage** - Leaf and Flower powder - 3 to 6 g

**Chemical constituents:**

The leaves contain lycopsamine and supindine viridiflorate as the predom - inant unsaturated pyrrolizidine alka - loids. Due to low concentration of these alkaloids Borage is not toxic. The drug contains potassium and calcium, combined with mineral acids. The stems and leaves supply much saline mucilage.

These saline qualities are mainly responsible for the wholesome invigorating properties of Borage. Flowers contain cholin, glucose, fructose, amino acids, tannin. Seeds contain protein and an oil. The seed oil is one of the important sources of

gamma - linoleic acid and linoleic acid.

गोधूमिका दर्पपत्री दर्विका कोष्ठमूलिका ।

गोभी गोली च गोजिहा विज्ञेया भूमिकालिका ॥

गोजिहा तुवरा तिक्ता स्वादुपाकरसाः हिमा ।

वातघ्ना ग्राहिणी हृद्या कफपित्तहरा लघुः ॥

हन्यात् कासारुचिश्वासप्रमेहास्रज्वरव्रणान् । कैयदेवनिघण्टु - ओषधिवर्ग

गोजिहा गोजिका गोभी दर्विका खरपर्णिनी ।

गोजिहा वातला शीता ग्राहिणी कफपित्तनुत् ।

हृद्या प्रमेहकासास्रव्रणज्वरहरी लघुः ।

कोमला तुवरा तिक्ता स्वादुपाकरसा स्मृता ॥ भावप्रकाश - गुडूच्यादिवर्ग

गोजिहा कुष्ठमेहास्रकृच्छ्रज्वरहरी लघुः ॥ भावप्रकाश - शाकवर्ग

godhūmikā darpapatrī darvikā koṣṭhamūlikā ।

gobhī golī ca gojihvā vijñeyā bhūmikālikā ॥

gojihvā tuvarā tiktā svādupākarasāḥ himā ।

vātaghnā grāhiṇī hr̥dyā kaphapittaharā laghuḥ ॥

hanyāt kāsārucisvāsaprimehāsrajavraṇān ।

kaiyadevanighaṇṭu - oṣadhivarga

gojihvā gojikā gobhī dārvikā kharaparṇinī ।

gojihvā vātalā śītā grāhiṇī kaphapittanut ।

hr̥dyā pramehakāsāsravraṇajvaraharī laghuḥ ।



komalā tuvarā tiktā svādupākarasā smṛtā || bhāvaprakāśa -  
guḍūcyādivarga

gojihvā kuṣṭhamehāsarakṛcchrajvaraharī laghuḥ || bhāvaprakāśa  
- śākavarga

### **Uses of Gojihwa:**

- Ash prepared from the leaf of Gohiwa is used to treat stomatitis and wound after the application.
- Decoction prepared from the leaf of *Onosma bracteatum* is used to treat jaundice and constipation.
- Cold infusion prepared from the leaf is used to treat psychiatric conditions, epileptic conditions.
- The cold infusion prepared from the flowers and fruits are given with *Glycyrrhiza glabra* powder in a dose of 50 - 60 ml to treat rhinitis and cough.
- The decoction prepared from the leaf of *Onosma bracteatum* is given in a dose of 30 - 40 ml to treat fever and difficulty in micturition.
- The cold infusion of the leaf is used as tonic, diuretic, demulcent and alternative, and is much prescribed as a tonic in rheumatism, syphilis, leprosy, hypochondriac's and kidney disease.

- The decoction of the plant relieves functional palpitation of the heart, irritation of the stomach and bladder.
- The root powders are used in cutaneous eruption as external application.

### **Traditional indications:**

Hima - coolant

Grahi - absorbent, useful in diarrhea, IBS

Hrudya - acts as cardiac tonic, congenial for heart

### **Indications:**

Kasa - cough, cold

Aruchi - anorexia

Shwasa - asthma and chronic respiratory disorders

Prameha - Urinary tract disorders, diabetes

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Jwara - fever

Vrana - Ulcers, wounds

**Adverse effect:** On rubbing the leaf over the skin, it can cause abrasion. No adverse effect is known after the internal use of the plant Gojihwa.

### **Formulations containing Gojihwa:**

Gojihwadi kashaya: Gojihwadi Kashaya is an Ayurvedic medicine in water decoction form. It is used in the treatment of fever, cough, bronchitis, asthma, rhinitis etc

Manasamitra vatakam: Manasamitra Vatakam is a tablet, used in Ayurvedic treatment of psychiatric conditions, to improve intelligence, speech problems, depression and psychosis.

Abana tablet: It is a proprietary ayurvedic tablet useful to treat heart related disorders such as high cholesterol, cardiac pain etc.

Divya mukta vati: It is a proprietary ayurvedic tablet useful to treat high blood pressure (hypertension) due to increased cholesterol, heart disease, kidney disorder, tension, anxiety etc.

### **Research articles about Onosma bracteatum:**

Anti - bacterial activity: Aim of this research work was to evaluate the antibacterial activity of Opuntia dillenii and Onosma bracteatum plants against various pathogenic strains of bacteria. The hot and cold water extract of Opuntia dillenii and Onosma bracteatum were used against four bacterial strains Escherichia coli, Bacillus subtilus, Staphylococcus aureus and Proteus mirabilis in order to check the antibacterial activity of these plants. The hot and cold water extract of Onosma bracteatum showed maximum activity against staphylococcus aureus while showed limited activity against other microorganisms.

Psychoimmunomodulatory action: The present study has evaluated the psychoimmunomodulatory effects of O. bracteatum on the stress model in SD rats. The study therefore

concluded that the extract of *O. bracteatum* showed a protective effect against the stress induced impaired immune functions and the psychological processes like memory and it also supported the traditional usage of *O. bracteatum* for the treatment of a variety of immune deficiency disorders (eg. asthma and rheumatoid arthritis) and abnormal memory disorders which included dementia.

**Anti - microbial action:** The fruit extracts of *Onosma bracteatum* was extracted with petroleum ether, acetone, methanol and aqueous solvents and screened for their antimicrobial activity against five bacteria and one fungi causing respiratory tract infections. All extracts showed inhibitory activity against selected pathogens. The crude extracts showed varying levels of bactericidal activity.

**Anti - diarrheal action:** The present study was carried out to evaluate the anti - diarrheal effect of ethanolic extract of *Onosma bracteatum* using castor oil and magnesium sulphate induced diarrhoea models in mice. At the doses of 250 and 500 mg/kg b.w, the ethanolic extract showed significant anti - diarrheal activity in both models.

**Classical categorization:**

Charaka Samhita - Shaka varga

Vagbhata - Shaka varga

Bhavaprakasha - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

**Scientific classification**

Kingdom: Plantae

Order: (unplaced)

Family: Boraginaceae

Genus: Onosma L.

## **65. Trichodesma indicum: Benefits, Remedies, Research, Side Effects**

**Adhah pushpi** - Trichodesma indicum is an Ayurvedic plant used for the treatment of Irritable Bowel Syndrome, rheumatoid arthritis, dysmenorrhea, snake poisoning and localized swelling.

Latin name - Trichodesma indicum R.Br.

Family - Boraginaceae

### **Names in different languages:**

Hindi name - Andhahuli, Chotta kulpha , Hetmundiya, Ondhaphuli, Ratmandiya.

English name - Indian Borage

Gujarati name - Undhaphuli

Kannada name - Athomukhi , Kattetumbesoppu

Kashmiri name - Nilakrai, Ratisurkh

Malayalam name - Kilukkamtumpa

Marathi name - Chhotaphulya, Lahanakalpa, Pathari, Gaoza.

Punjabi name - Andusi, Kallributi, Nilakrai, Ratmandi.

Sindhi name - Gozaban

Tamil name - Kiluttaitumpai, Kallutaitumpai.

Telugu name - Guvvagatti.

### **Sanskrit Synonyms:**

Andhaka Because of covering of flowers the flower seems to be absent.

Andha pushpaka Flower is opposed by leaf.

Avak pushpi Flower does not move when wind blows as it is covered by leaves.

Adhah pushpi Flowers which face downwards.

Adhoh mukha - Which face downwards

Amara pushpika Flowers are beautiful

Gandha pushpika Flowers having fragrance

Dhenu jihva Leaves resemble the tongue of cow

Romalu Leaves are hairy

Vashyanga Flower is under control of leaf

Shayalu - That which is always sleeping or not seen

Shata pushpa - That which has hundred flowers

The plant is seen all over India, having hairy stem and growing to a height of 1 - 1.5 feet. It is a plant bearing bluish white colored flowers in the month August and which fruits in October.

### **Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion)

Veerya (Potency) - Ushna (Hot)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Whole plant, Root

## **Dosage -**

Paste of root - 5 to 10 g

Juice of plant - 10 to 20 ml

## **Chemical constituents:**

The seed of the plant contains Linoleic acid, Oleic acid, Palmatic acid and stearic acid. The leaves contains Hexaconase, Ethylhexacosanoate, Ethylester and 21, 24 - hexacosadienoic acid.

अधः पुष्पी रसे तिक्ता कट्वी लघ्वी प्रशास्यते।

विर्योष्णा कफवातघ्नी व्रणशोयहरा परम् ॥ ( द्र. गु.वि)

adhah puṣpī rase tiktā kaṭvī laghvī praśāsyate|

viryōṣṇā kaphavātaghnī vraṇaśoyaharā param || ( dra. gu.vi)

## **Uses of Adah pushpi:**

- The paste of the whole plant is applied over the joints affected with pain and swelling in rheumatoid arthritis.
- The juice of *Trichodesma indicum* is given in a dose of 15 - 20 ml to treat Irritable Bowel Syndrome and diarrhea.
- Cold infusion of the leaves of Adah pushpin is given in a dose of 25 - 30 ml to treat burning sensation and difficulty during micturition.
- The paste of the root is applied over the area affected with snake bite.



- The decoction of the plant is given in dose of 30 - 40 ml to treat dysmenorrhea and in cases of abortion.
- The paste of the root of *Trichodesma indicum* is applied over the area affected with skin infection.

**Adverse effect:** No known adverse effect is reported after the use of Adah pushpi.

### **Research articles related to *Trichodesma indicum*:**

Anti - daibetic activity: The objective of the study was aimed to investigate the anti - diabetic activity of *Trichodesma indicum* (L.) in both in vitro amylase assay and in vivo streptozotocin - nicotinamide induced type 2 diabetic rats. The results showed that methanolic leaf extract has moderate  $\alpha$  - amylase inhibitory activity (IC<sub>50</sub> value = 91.3  $\mu$ g/ml) when compared to acarbose. Glucose uptake assay of four extracts showed significant activity.

Anti - mitotic and anti - proliferative action: The dried aerial parts of *T. indicum* were successively extracted with petroleum ether, successive chloroform extract (SCH), successive ethanol extract (SEE) and water. Both SCH and SEE extracts showed significant antimitotic and antiproliferative activity when compared to the standard methothreaxate, vincreastine and adriamycin.

Anti - microbial potential: The anti - microbial action has been checked against five gram positive bacteria and three fungi and found effective.

Anti - inflammatory action: The four extracts of the plant showed anti - inflammatory action in in vitro study conducted in rats.

**Classical categorization:**

Shodala Nighantu - Laxmanadi varga

Nighantu Adarsha - Shleshmatakadi varga

**SYSTEMIC CLASSIFICATION**

KINGDOM : Plantae

SUB - KINGDOM : Phanerogamia

DIVISION : Angiospermia

CLASS : Dicotyledons

SUB - CLASS : Corolliflorae or Gamopetalae

FAMILY : Boraginaceae

GENUS : Trichodesma

SPECIES : Indicum

## **66. Vruddhadaru *Argyreia speciosa*: Uses, Remedies, Research**

Vruddhadaru - *Argyreia speciosa* is a plant mentioned for the treatment of swelling, rheumatoid arthritis, general debility, leucorrhea, oligospermia and diabetes.

Latin name - *Argyreia speciosa* Sweet. Some identify *Argyreia nervosa* as Vridha Daru.

Family - Convolvulaceae

### **Vridha Daru Names in different languages:**

Hindi name: Samudrashosh, Bidara, Vidhara, Yuvika Bidhara

English name: Elephant creeper

Bengali name: Bichtarak Guguli

Gujarathi name: Samundar sosh

Kannada name: Samnudra balli

Malayalam name: Samudrapacha

Marathi name: Samudrasoah

Tamil name: Ambagar

Telugu name: Samudrapela

### **Vridh daru Sanskrit Synonyms:**

Trikonakanda - the stem of the vine is triangular

Hasthi valli - The leaf is big like the palm

Samudra patra - The leaf resembles the foam in sea waves when viewed from a distance

Ajaantri, Mahashyama, Vallari, Deergha, Samudra palaka, Avegi,

Jongaka, Jirnavalaka,

Antakotarapushpi - flower with a hollow inside

Mahishavallari, Ajantri, Mahashyama, Vellari, Deerghavalaka,

Jeernadaru



**Morphology of *Argyreia speciosa*:** The plant is a perennial climbing vine and is native to Indian sub - continent and later introduced through - out the world. Hairs like small structures are seen over the stem of the plant. The leaves are wide, big and smooth at the top surface and have thin hair like structure on the lower surface. The flowers are bell shaped and purple to pink colored. The seeds of the plant are pale white and intoxicating in nature.

**Properties of Vidhara (Yuvika Bidhara)**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Snigdha (Slimy)

Vipaka - Madhura (Undergoes sweet taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)



**Part used** - Root, Seed powder

**Dosage** - 3 to 6 g of root powder, 1 to 2 g of seed powder

### **Chemical constituents of *Argyreia speciosa***

The plant contains tannins and resin. The roots yielded and resins of amber colour, soluble in ether and benzole and partly soluble in alkaloids. The seeds are reported to contain alkaloids, chanoclavine, ergine, ergonovime and isoergine. The extract of seeds exhibits hypotensive and hallucinating activity. The leaf contains 1 - triacont and epifredelinol and its acetate and  $\beta$  - sitosterol.

वृद्धदारुः कटुस्तिक्तः कषायोष्णो रसायनः ।

शुक्रायुर्बलमेध्याग्निस्वरकान्तिकरः सरः ॥

शोफामवातवातास्रवातमेहकफापहः । कै.नि.

वृद्धदारुः कटुस्तिक्तस्तथोष्णः कपवातजित् ।

श्वयथुकृमिमेहास्रवातोदरहरः परः ॥ ध.नि.

वृद्धदारुद्वयं गौल्यं पिच्छिलं कफवातहृत् ।

बल्यं कासामदोषघ्नं द्वितीयं स्वल्पवीर्यदम् ॥ रा.नि.

वृद्धदारुः कषायोष्णः कटुस्तिक्तो रसायनः ।

वृष्यो वातामवातार्शह् शोथमेहकफप्रणुत् ॥

शुक्रायुर्बलमेधाग्निस्वरकान्तिकरः सरः ॥ भा. प्र

vṛddhadāruḥ kaṭustiktaḥ kaṣāyoṣṇo rasāyanaḥ ।

śukrāyurbalamedhyāgnisvarakāntikaraḥ saraḥ ॥

śophāmavātavātāsraṅvātamehakaphāpahaḥ । kai.ni.

vṛddhadāruḥ kaṭustiktastathoṣṇaḥ kapavātajit ।

śvayathukṛmimēhāsraṅvātodaraharaḥ paraḥ ॥ dha.ni.

vṛddhadārudvayaṃ gauḷyaṃ picchilaṃ kaphavātahr̥t ।

balyaṃ kāśāmadoṣaghnaṃ dvitīyaṃ svalpavīryadam ॥ rā.ni.

vṛddhadāruḥ kaṣāyoṣṇaḥ kaṭustikto rasāyanaḥ ।

vṛṣyo vātāmavātārśah śoṭhamehakaphapraṅut ॥

### **Uses of Vruddhadaru:**

- The leaf of *Argyreia speciosa* is slightly heated and applied over wounds associated with pus for quicker ripening of the wound and proper healing.
- The powder of the root is given in a dose of 3 - 5 g to treat oligospermia.
- The cold infusion or the decoction of the plant is given in a dose of 40 - 50 ml to control diabetes.
- The decoction of the root of *Argyreia speciosa* is useful to treat leucorrhoea and fever.
- The powder of the root is given with honey to treat cough and improve the voice.
- The powder of the seed is given in a dose of 2 - 3 g to treat insomnia.
- The decoction of Vruddhadaru is given in dose of 30 - 40 ml to treat nerve weakness and improve the strength of the cardiac muscles.
- The juice of the leaf is used to treat indigestion, lack of appetite and constipation.

- Ghee cooked with vruddhadaru root should be taken with milk. It is an excellent aphrodisiac and should be usually those desiring progeny.

### **Traditional uses:**

Rasayana - anti aging, causes cell and tissue rejuvenation

Shukrakara - improves sperm and semen quality, quantity

Ayukara - improves life expectancy

Balakara - improves strength and immunity

Medhya - improves intelligence

Agnikara - improves digestion strength

Swarakara - improves voice tone and quality

Kantikara - improves skin complexion

Sara - induces mobility, causes diarrhea, purgation, relieves constipation

### **Indicated in:**

Shopha - inflammation

Amavata - Rheumatoid arthritis

Vatasra - Gout

Vatodara - Bloating

**Adverse effects:** The dried seeds are intoxicating and can cause hallucination and inebriated condition. Due to this reason the seeds are banned in some European countries.

### **Formulations containing Vruddhadaru:**



**Banovit capsule:** It is a proprietary Ayurvedic medicine to regain loss of vigour, vitality and libido, and also it is a natural aphrodisiac.

**Confido tablet:** Confido Tablet is a proprietary Ayurvedic medicine. Confido increases sperm count and testosterone levels, thereby combating erectile dysfunctions. It regulates ejaculation via the neuroendocrine route and improves sexual drives.

### **Research articles related to *Argyreia speciosa*:**

**Anti - anxiety activity:** Aim of the present study was a comparative evaluation of antianxiety activity of three traditionally used medicinal plants — *Argyreia speciosa* (Roots), *Caesalpinia digyna*(Roots) and *Sphaeranthus indicus* (Flowers). The activity of various extracts (petroleum ether, chloroform, ethanol and water) of all the three plants was evaluated using elevated plus - maze model. The studies were conducted on lacca mice, and the test materials were administered per oral route. Results indicate that the ethanol extract of *C. digyna* roots exhibited maximum and significant dose dependent effect at 200 and 400 mg/kg on elevated plus - maze, the results were comparable to the standard antianxiety drug diazepam (2 mg/kg).

**Anti - inflammatory action:** The study was carried out using male albino mice (20 - 25 gm) and male wistar rats (100 -

150gm). The ME was prepared using soxhlet extraction process. The effect of ME of *A. speciosa* was investigated for analgesic activity using acetic acid - induced abdominal constriction, tail immersion method and hot plate method. The anti - inflammatory activity of ME of AS roots was studied using carrageenan - induced rat paw edema. The ME of *A. speciosa* showed significant analgesic and anti - inflammatory activity in mice and rat.

**Wound healing property:** In order to find scientific evidence for the traditional utilization of leaves of *A. speciosa* in wound healing, this investigation was carried out. A simple ointment, developed by including ethanol, ethanol - water, and water extracts (10% each, separately) of *A. speciosa*, was applied topically to mice once daily for 14 days after wounding. The water extract of *A. speciosa* showed accelerated wound healing activity as evidenced by fast wound contraction, rapid epithelization period, greater wound breaking strength, and higher hydroxyproline content of granulation tissue. The present report supports the traditional use of *Argyreia speciosa* leaves for wound healing and signify its relevant therapeutic potential.

**Classical categorization:**

Charaka: Sukrajanana

Sushruta: Adhobhagahara

Bhavaprakash Nighantu: Guduchyal varga

Dhanwantri Nighantu: Karaveeradi varga

Bhavaprakash Nighantu: Guduchyadi varga

Raja Nighantu: Guduchyadi varga

Nighantu Adarsh: Vriddhadarukadi varga

**Scientific classification:**

Kingdom: Plantae

Sub - kingdom : Phanerogamia

Division : Angiodpermia

Class : Dicotyledons

Subclass : Corolli florum / Gamopetpue

Order : Natural

Family : Convolvulaceae

Genus : Argyria

Species : Speciosa

## **67. Ipomoea hederacea Kaladana: Uses, Remedies, Research, Side Effects**

Kaladana or Ipomoea hederacea is an Ayurvedic plant used for the treatment of skin diseases, fever, headache, worm infestation and for inducing purgation. It is called Krishnabeeja in Ayurved.

Latin name - Ipomoea hederacea Jacq.

Family - Convolvulaceae

### **Names in different languages:**

Hindi name - Kaladana

English name - Pharbitis seed, Morning Glory Flower

Arabic name - Habbunnel

Bengali name - Kala dana

Gujarathi name - Kala dana

Kannada name - Ganari beeja

Marathi name - Kala dana

Tamil name - Kakkatan

Telugu name - Kolli



**Sanskrit Synonyms:**

Kala dana, Shyam beeja - The seeds are black in color  
Kakanjani, Kakanjaika, Rechana, Shomabeeja.



**Morphology of Ipomoea hederacea:**

Krishna beeja is a climbing vine which is hairy and soft. The leaf is heart shaped and hairy. The flowers are bluish to pink in color, funnel shaped. The fruits are egg shaped, occur in

clusters of one to three and are 0.5 to 0.75 inch long 1 to 2 inch long and wide. The seeds are black in color, 4 to 6 in number, triangular in shape. The pulp inside the seed is white in color. The plant is found and grown all over the plains of India. The species is native to tropical parts of the America.



**Properties:**

Rasa (Taste) - Katu (Pungent), Madhura (Sweet)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Veerya (Potency) - Ushna (Hot)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha)

**Part used** - Seeds

**Dosage** - 1 to 3 g of seed powder



### **Chemical constituents of Ipomoea hederacea**

The seed gave alkaloids lysergol, chanoclavine, penniclavine, iso - penni - clavine and elymoclavine. It also has glycoside and Aglacoside which can cause purgation.

### **Uses of Krishnabeeja:**

- The seed of Ipomoea hederacea is applied over the area affected with skin diseases like ringworm and fungal infection.

- The powder of the seed is given in a dose of 2 to 3 g to cause purgation and is useful in severe constipation and in treating intestinal worm.
- The paste of the seed of Krishnabeeja is applied over the area affected with swelling, joints with pain.
- The paste of Ipomoea hederacea seed is applied over forehead to treat headache.
- The decoction of the seed is given in a dose of 40 - 50 ml to treat fever.
- The powder of the seed ( 1 to 2 g) with sugar candy, Haritaki fruit (Terminalia chebula) is given to treat hyperacidity.

रेचनं श्यामबीजं स्याच्छोमबीजं स्याच्छोथोदरविनाशनम्॥

ज्वरे पुरीषसङ्गे च दारुणे शिरसो गदे ।

उदावर्ते तथानाहे बुधैर्नाहे प्रयुज्यते॥ (आ.वि)

recanaṃ śyāmabījaṃ syācchomabījaṃ

syācchothodaravināśanam||

jvare purīṣasaṅge ca dāruṇe śiraso gade |

udāvarte tathānāhe budhairnāhe prayujyate|| (ā.vi)





**Adverse effects:** Excessive use of Krishna beeja can cause purgation and abdominal cramps. Hence not advisable during diarrhea or related intestinal conditions.

**Formulation containing Krishnabeeja:**

Easigo tablet: This is a proprietary medicine used for the treatment of mild to severe constipation.

**Research articles related to Ipomoea hederacea:**

Anti - microbial study: In the present study methanolic extracts of leaves, flowers, stem, seed and roots from Ipomoea hederacea were evaluated using an antimicrobial assay, the determination of total phenolic content, 2,2 - diphenyl - 1 - picrylhydrazyl (DPPH) free radical and the total antioxidant capacity. Our results suggested that methanolic extracts exhibited high antimicrobial effects when tested against various bacterial and fungal strains (i.e. B. subtilis, P. multocida, S. aureus, E. coli, A. niger, A. flavus, A. alternate and R. solani).

**Hepato - protective action:** Ipomoea hederacea extract, a novel hepatoprotective drug has been shown to provide an antioxidant potential against carbon tetra chloride treated experimentally induced hepatotoxic rats in comparison with standard hepatoprotective drug silymarin. Significantly raised levels of serum bilirubin, lipid peroxides and decreased activities of antioxidant enzymes such as superoxide dismutase, catalase, glutathione peroxidase, glutathione reductase and decreased activities of gamma glutamyl transpeptidase were observed and it was nearer to normal in Ipomoea hederacea administered experimentally induced hepatotoxic rats. These observations clearly suggested the hepato - protectivity and antioxidant property of Ipomoea hederacea.

### **Scientific classification**

Kingdom: Plantae

Order: Solanales

Family: Convolvulaceae

Genus: Ipomoea

Species: I. hederacea

## **68. Akhuparni: Ipomea reniformis: Uses, Remedies, Research, Side Effects**

Akhuparni Ipomea reniformis is an Ayurvedic plant used for the treatment of swelling, headache, facial palsy, intestinal worms, snake poisoning, diabetes and skin diseases.

Latin name - Merremia emarginata/ Ipomea reniformis, Ipomoea reniformis

Family - Convolvulaceae

### **Names in different languages:**

Hindi name - Musakani, Chuhakanni

Bengali name - Indurakani

Gujarati name - Undarakani

Kannada name - Ilikivi gida

Marathi name - Undirkani

Malayalam name - Elichhevi

Tamil name - Elikatu keerayi

Telugu name - Ellika jemudu

Urdu name - Chukakani

### **Sanskrit Synonyms:**

Akhuparni, Mushika parni, Akhu karni - Leaf resemble the ear of rat

Dravanti, Shambari, Bhumichari - The plant spreads quickly

Leeka, Vrushakarni, Bhudarashraya, Bhudaribhava, Krushika, Bahukarnika, Chandi, Pratyakshreni

## **Morphology of Ipomoea reniformis**

Akhuparni is a small plant found all over India in the damp, moist regions. Root grows from each nodule of the plant spreading quickly in the ground. The leaf are kidney shaped and resemble the ear of the rat; hence the name Akhuparni. The flowers are small and are seen in the month of September to December. The seeds are smooth, dark brown to black in color.

### **Akhuparni medicinal properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Veerya (Potency) - Ushna (Hot)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Prabhava (Special action) - Krimighna (Act against worms)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Whole plant

**Dosage** - 10 to 20 ml of fresh juice

### **Chemical constituents of Merremia emarginata:**

The major chemical constituents of the plant are Caffeic, P - coumaric, Ferulic and Sinapic acid esters.

आखुकर्णी कटुस्तिका कषाया शीतला लघुः ।

विपाके कटुका हन्ति कफमूत्रामयकृमीन् ॥ कै.नि.

आखुकर्णी कटुस्तिका कषाया शीतला लघुः ।

विपाके कटुका मूत्रकफामयकृमिप्रणुत् ॥ भा.प्र.

आखुकर्णी कटूष्णा च कफपित्तहरा सदा ।

आनाहज्वरशूलार्ति नाशिनी पाचनी परा ॥ रा.नि.

ākhukarṇī kaṭustiktā kaṣāyā śītalā laghuḥ ।

vipāke kaṭukā hanti kaphamūtrāmayakṛmīn ॥ kai.ni.

ākhukarṇī kaṭustiktā kaṣāyā śītalā laghuḥ ।

vipāke kaṭukā mūtrakaphāmayakṛmipraṇut ॥ Bhavaprakasha.

ākhukarṇī kaṭūṣṇā ca kaphapittaharā sadā ।

ānāhajvaraśūlārti nāśinī pācanī parā ॥ rā.ni.

### Uses of Akhuparni:

- One should consume decoction of Aakhuparni mixed with sugar in a dose of 30 - 40 ml to treat case of fever caused by worms.
- The juice of the leaf of Merremia emarginata is given in a dose of 10 - 15 ml to control diabetes.

- To treat rhinitis, Aakhuparni juice and Bhringaraja juice are mixed and used as nasal drops.
- In snake bite cases the juice of the leaves is given for drinking and the paste is used for application at the site.
- To treat earache, the drops of the leaf of Merremia emarginata is added with sesame oil and installed as ear drops.
- The powder of the seeds is mixed with water and made into paste which is applied over the scalp to treat headache.
- The decoction of the whole plant of Akhuparni is given in a dose of 40 - 50 ml to treat cough and asthma.
- To treat distention of bladder, the paste of the plant is applied over the bladder region.
- The paste of the plant of Merremia emarginata is applied over the area affected with skin diseases.

### **Traditional uses:**

kaphahara - balances Kapha Dosha

Pachani - Digestive, relieves Ama Dosha

### **Indications:**

Mutramaya - Urinary tract disorders

Krumi - worm infestation

Anaha - bloating, fullness

Jwara - fever

Shoola - abdominal colic pain

Arti - relieves pain

**Adverse effects:** No adverse effect is reported after the use of Akhuparni.

### **Formulation containing Akhuparni:**

Krimighna kashaya: This is a medicine in decoction form and is useful to treat intestinal worms.

Brihat Vidyadharabhra Rasa: Brihat Vidyadharabhra Ras is an Ayurvedic medicine in tablet form, used in the treatment of abdominal pain, digestive disorders etc. This medicine contains heavy metal ingredients, hence should only be taken under strict medical supervision.

### **Research articles related to Merremia emarginata:**

**Anti - cancer activity:** The present study was designed to evaluate the invitro anticancer activity of Merremia emarginata Burm.F. The different solvent fraction of whole plant Merremia emarginata Burm.F was subjected for MTT assay. The ethylacetate fraction of whole plant was found to be cytotoxic against human cervical carcinoma Hela cell lines and human breast carcinoma MCF cell lines. The IC 50 value of ethylacetate fraction was 51.57µg/ml against Hela cell lines and 39.6µg/ml against MCF - 7 cell lines.

**Anti - inflammatory action:** Ethanolic extract of whole plant of (EME)(100, 200 and 400 mg/kg p.o) was studied for its anti

- inflammatory activity using carrageenan induced rat paw edema animal model, anti - arthritis activity using complete freund's adjuvant model and analgesic activity at the same dose level using Hot plate analgesia in mice. The Percentage inhibition with indomethacin and EME in the carrageenan induced paw edema at the dose level 400mg/kg were 82% and 74% at the end of 5hr. The results indicate that treatment of adjuvant induced arthritic rats with EME improves ESR, Hb value and also restores body weight. Significant ( $P<0.05$ ) inhibitory effect was observed with EME on FCA induced paw edema throughout the study. In radiant tail flick method, the extract at the dose 400mg/kg showed reaction time  $5.9 \pm 0.52$  ( $P<0.05$ ). The ethanolic extract possesses anti - inflammatory, anti - arthritis and analgesic activity.

**Classical categorization:**

Charaka - Krimighna mahakashaya

Sushruta - Surasadi gana

Shodala nighantu - Nama sangraha

Raja nighantu - Guduchyadi Varga

Kaiyadeva nighantu - Aushadi varga

Bhavaprakasha nighantu - Guduchyadi varga.

Shaligrama nighantu - Guduchyadi varga

Priya nighantu - Shatapushpadi varga



**Scientific classification:**

Kingdom - Plantae

Division - Spermatophyte

Sub - division - Angiospermae

Class - Dicotyledanae.

Sub - class - Metachlamydeae

Order - Tubiflorae

Family - Convulvaceae.

Genus - Ipomoea

Species - reniformis

## **69. Akashavalli Cuscuta reflexa: Uses, Remedies, Research, Side Effects**

Akashavalli - Cuscuta reflexa is a plant mentioned for the treatment for eye diseases, cough, asthma, diarrhea and indigestion.

Latin name - Cuscuta reflexa Roxb.

Family - Convolvulaceae

### **Names in different languages:**

Hindi name - Amarbel

English name - Beggar weed, Lady's lace

Bengali name - Swarnalata

Gujarathi name - Akasbel

Malayalam name - Akashavalli, Mudillatali

Marathi name - Nirmuli, Amarvela

Kannada name - Akashaballi

Tamil name - Erumaikottan

Telugu name - Nulu tega

### **Synonym:**

Swarnalatha - The plant is golden colored

Vyomavallika, Vyomavalli, Khavalli, Amaravalli - The plant has a long life

Nirmuli - Plant do not have proper root

Dusparsha, Asparsha, Katkara, Avanti, Amaravalli

## **Morphology of Cuscuta reflexa:**

is a parasitic plant climbing to bigger plants and tree nearby and is found all over India in the plains and coastal region. The plant is green in color and turns to golden color as it grows. It does not have any leaf. White colored flowers are seen in the plant.

## **Properties:**

Rasa (Taste) - Kashaya (Astringent), Tikta (Bitter)

Guna (Qualities) - Picchila (Slimy)

Veerya (Potency) - Sheeta (Cold)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha)

**Part used** - Whole plant

**Dosage** - 10 to 20 ml of juice

## **Chemical constituents of Cuscuta reflexa:**

D - Mannitol, Kaempferol, myricetin and betasitosterol, amarbelin, cuscutin, cerotic, linolenic, linolic, oleic, stearic and palmitic acids, phytosterol, abscissic acid, dulcitol, luteolin and its glucoside, quercetin, aminoacids, cusculatin, are reported from this plant.

अवन्ती ग्राहिणी तिक्ता पिच्छिलाक्ष्यामयापहा | कै.नि.

खवल्ली ग्राहिणी तिक्ता पिच्छिलाक्ष्यामयापहा |

तुवराऽग्निकरी हृद्या पित्तश्लेष्मामनाशिनी ॥ भा.प्र.

आकाशनामपूर्वा सा वल्लीपर्यायगा स्मृता ॥

आकाशवल्ली कटुका मधुरा पित्तनाशिनी ।

वृष्या रसायनी बल्या दिव्यौषधिपरा स्मृता ॥ रा.नि.

avantī grāhiṇī tiktā picchilā'kṣyāmayāpahā | kai.ni.

khavallī grāhiṇī tiktā picchilākṣmāmayāpahā |

tuvarā'gnikarī hr̥dyā pittaśleṣmāmanāśinī ॥ Bhavaprakasha.

ākāśanāmapūrvā sā valliparyāyagā smṛtā ॥

ākāśavallī kaṭukā madhurā pittanāśinī |

vṛṣyā rasāyanī balyā divyauṣadhiparā smṛtā ॥ rā.ni.

### Uses of Akashavalli:

- The juice of Akashavalli is used as eye drops to treat conjunctivitis.
- The fresh paste of the plant is applied over wound to control bleeding and reduce inflammation.
- Oil formulated using sesame oil and Cuscuta reflexa is applied over the scalp to reduce hair fall and promote strong hair root.
- The paste of Akashavalli is applied externally over the area affected with scabies.

- Cold infusion of the plant is given in a dose of 40 ml to treat difficulty in micturition.
- The decoction of *Cuscuta reflexa* is given in a dose of 30 - 40 ml to treat diarrhea and irritable bowel syndrome.
- The fresh juice of the plant is given in a dose of 10 - 15 ml as appetizer and liver stimulant.

### **Traditional uses:**

Picchila - Sticky, Slimy

Agnikari - Deepana - improves digestion strength

Hrudya - acts as cardiac tonic, congenial for heart

Vrushya - aphrodisiac, improves vigor

Rasayani - anti aging, causes cell and tissue rejuvenation

Balya - improves strength and immunity

### **Indications:**

Akshiroga - eye disorders

**Adverse effect:** No adverse effect is known or reported from the use of Akashavalli.

### **Research articles related to *Cuscuta reflexa*:**

Anti - diabetic activity: The hypoglycemic effects of methanol and chloroform extracts of whole plants of *Cuscuta reflexa*, and methanol extract of leaves of *Calotropis procera* were investigated in oral glucose tolerance tests in Long Evans rats and Swiss albino mice, respectively. Both methanol and chloroform extracts of *Cuscuta reflexa* whole plant

demonstrated significant oral hypoglycemic activity in glucose - loaded rats at doses of 50, 100 and 200 mg/kg body weight.

**Anti - tumor action:** The antitumor activity of the chloroform and ethanol extracts of *Cuscuta reflexa* was evaluated against Ehrlich ascites carcinoma (EAC) tumor in mice at doses of 200 and 400 mg/kg body weight orally, respectively, while acute oral toxicity studies were performed to determine the safety of the extracts. Administration of the extracts resulted in a significant ( $p < 0.05$ ) decrease in tumor volume and viable cell count, but increased non - viable cell count and mean survival time, thereby increasing the life span of the tumor - bearing mice.

**Anti - oxidant action:** In the present study, comparative anti - oxidant activity of alcoholic extracts of *Cuscuta reflexa* and *Cassytha filiformis* was assessed. *Cuscuta reflexa* plant is reported to have greater in vitro antioxidant activity than *Cassytha filiformis* which were expressed as IC<sub>50</sub>. Ethanolic extracts of *Cuscuta reflexa* contained more polyphenols content compared with ethanolic extracts of *Cassytha filiformis*.

**Classical categorization:**

Bhavaprakasha - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Guduchyadi varga

**Scientific classification:**

Kingdom: Plantae

Sub - kingdom: Angiospermia

Class: Dicotyledon

Sub - class: Colobiflorae

Order: Natural

Family: Convolvulaceae

Genus: Cuscuta

Species: Reflexa

## **70. Black Nightshade Solanum nigrum: Uses, Remedies, Research, Side Effects**

Kakamachi Solanum nigrum is an Ayurvedic plant used for treating fever, opium poisoning, splenomegaly, diseases of the liver, rodent bites, vitiligo, nausea, diseases of the oral cavity and headache.

Latin name - Solanum nigrum

Family - Solanaceae

### **Kakamachi - Names in different languages:**

Hindi name - Makoi, Gurakani

English name - Black nightshade, Common nightshade, Hound's berry, Garden Nightshade

Bengali name - Kakamachi, Dudakamai

Gujarathi name - Pludi

Kannada name - Kaagehannina gida, Kaakamache, Kakkehannu

Marathi name - Kaamani, Ghati, Makoi.

Malayalam name - Manithakkal, Kasumuthi, Karim thakkali

Punjabi name - Mako

Telugu name - Kanchi ponda, Kamanchi - chettu

Tamil name - Manattakkali, Thenna takali pullum, Milagetakkali

Tulu name - Kaachiponda



Urdu name - Makoh



### **Sanskrit Synonyms of Makoi**

Bahuphala - The plant yields many fruits

Sarvatikta, Bahutikta - The fruits are bitter

Gucchaphala - The fruits are found in clusters

Kushtagni - Treats skin diseases

Gucchaphala, Bahuphala - numerous fruits in a bunch

Kakini, Vayasi, Kakamachi, Kakahva - The fruits are liked by crows

Jaghanephala, Matsyakshi, Rasayani

Gudaphala, Svadupakaphala - sweet fruits



**Morphology of Solanum nigrum:**

Kakamachi is a small herb found all over India in the temperate region. The leaves are small; the flowers are white and found in clusters. The fruits are small, round, shiny and purplish to black color when ripe. Solanum genus is native to Eurasia and later introduced in the American continent and South Africa. Parts of this plant can be toxic to livestock and humans. Nonetheless, ripe berries and cooked leaves of edible strains are used as food in some locales, and plant parts are used as a

traditional medicine.



**Medicinal properties of Common Nightshade:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light), Snigdha (Slimy)

Veerya (Potency) - Anushna (Not Hot)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Tridoshagna (reduces all the three dosha)

**Part used** - Fruit, Whole plant

**Dosage** -

Juice - 10 to 20 ml of whole plant

Fruit powder - 2 to 3 g

Distillate of plant - 20 - 25 ml



### **Chemical constituents of Solanum nigrum:**

The berries contain steroidal alkaloid glycosides, solasonine, alpha - and beta - solanigrine, alpha - and beta - solamargine; steroidal sapogenins, diosgenin and tigogenin; solasodine and solasonine. Solamargine and solasonine are present also in leaves. Leaves contain highest tigogenin content (0.5%), dry fruits contains chlorogenic (0.06%), caffeic (0.02), traces of neochlorogenic & isochlorogenic acids and caffeoylglucose (0.01%).

### **Medicinal uses of black nightshade:**

- The leaves of kakamachi plant is applied the area affected with skin diseases like scabies, ringworm, vitiligo etc
- Poultice of the leaf is prepared and applied externally to treat localized swelling.

- To treat **Herpes** disease, the paste prepared from the leaf of Solanum nigrum is applied along with ghee over the area affected area.
- In eye disease like conjunctivitis and itching sensation, the eye is fumigated with the leaf applied with ghee or butter.
- To strengthen the hair roots and to improve the color of scalp hair, oil is processed using sesame oil, Kakamachi leaf and sesame seeds and this oil is used as nasal drops.
- To treat urticarial patches, ginger is pounded with juice of Kakamachi and is given in a dose of 15 - 20 ml.
- Ghee cooked with the juice of Kakamachi leaf is useful in rat poisoning.
- The fresh juice of the leaf and fruits of Solanum nigrum is given in dose of 10 - 15 ml to treat cough and asthma.
- The decoction prepared from the leaf and fruit is given in a dose of 30 - 40 ml to treat splenomegaly and hepatomegaly.
- Cold infusion of the fruits and leaf of Kakamachi is given in a dose of 30 - 40 ml to treat fever and nausea.
- The juice of the plant Solanum nigrum is given as an **anti - dote to opium poisoning** and also **to treat rat bite cases**.

- Gargling of the decoction of the plant is done to treat diseases of the oral cavity like ulcer, gingivitis etc.
- The fresh juice of the leaf is slightly heated and used as ear drops to control ear ache.

काकमाची कटुस्तिका सोष्णा स्निग्धा रसायनी ॥

हृद्या वृष्या सरा स्वर्या त्रिदोषघ्नी लघुर्जयेत् ।

कुष्ठशोफप्रमेहार्शःश्वासकासारुचिज्वरान् ॥

कटुर्नेत्रहिता हिक्काच्छर्दिहृद्रोगनाशिनी । कै.नि.

काकमाची त्रिदोषघ्नी सरा स्वर्या सतिक्तका ।

हन्ति दोषत्रयं कुष्ठं वृष्या सोष्णा रसायनी ॥ ध. नि.

काकमाची त्रिदोषघ्नी स्निग्धोष्णा स्वरशुक्रदा ।

तिक्ता रसायनी शोथकुष्ठार्शोर्ज्वरमेहजित् ।

कटुर्नेत्रहिता हिक्काच्छर्दिहृद्रोगनाशिनी ॥ भा.प्र.

काकमाची कटुस्तिका रसोष्णा कफनाशनी ।

शूलार्शःशोफदोषघ्नी कुष्ठकण्डूतिहारिणी ॥ रा.नि

काकमाची सरा स्वर्या वृष्या दोषत्रयापहा ।

नात्युष्णा शीतला नाति कुष्ठहन्त्री रसायनम् ॥ सो. नि.

kākamācī kaṭustiktā soṣṇā snigdhā rasāyanī ॥

hr̥dyā vr̥ṣyā sarā svaryā tridoṣaghnī laghurjayet |  
kuṣṭhaśophapramehārśaḥśvāsakāsārucijvarān ||  
kaṭurnetrahitā hikkāchardihṛdroganāśinī | kai.ni.  
kākamācī tridoṣaghnī sarā svaryā satiktakā |  
hanti doṣatrayaṃ kuṣṭhaṃ vr̥ṣyā soṣṇā rasāyanī || Dhanvanati  
Nighantu  
kākamācī tridoṣaghnī snigdhoṣṇā svaraśukradā |  
tiktā rasāyanī śothakuṣṭhārśojvaramehajit |  
kaṭurnetrahitā hikkācchardihṛdroganāśinī || Bhavaprakasha.  
kākamācī kaṭustiktā rasoṣṇā kaphanāśanī |  
śūlārśaḥśophadoṣaghnī kuṣṭhakaṇḍūtihāriṇī || rā.ni  
kākamācī sarā svaryā vr̥ṣyā doṣatrayāpahā |  
nātyuṣṇā śītalā nāti kuṣṭhahantrī rasāyanam || so. ni.

### **Traditional uses of Kakamachi:**

Rasayani - anti aging, causes cell and tissue rejuvenation

Hrudya - acts as cardiac tonic, congenial for heart

Vrushya - aphrodisiac, improves vigor

Sara - induces mobility, causes diarrhea, purgation, relieves constipation

Svarya - improves voice tone and quality

Netrahita - good for eyes

Shukrada - Shukrala - improves sperm and semen quantity and quality

**Indicated in:**

Kushta - skin diseases

Shopha - inflammation

Prameha - Urinary tract disorders, diabetes

Arsha - haemorrhoids

Shwasa - asthma and chronic respiratory disorders

Kasa - cough, cold

Aruchi - anorexia

Jwara - fever

Meha - diabetes, urinary tract disorders

Hikka - hiccups

Chardi - Vomiting

Hrudroga - cardiac disorders

**Adverse effect:** Poisoning occurs mainly from ingestion of plant, especially the unripened fruits. The main signs & symptoms are - on the CVS (tachycardia, arrhythmia & hypotension), on the CNS (delirium, psychomotor, agitation, paralysis, coma & convulsion) & on the GIT (nausea, vomiting,



diarrhea).



### **Ayurvedic medicines containing Kakamachi:**

**Cirrhonil syrup:** Cirrhonil Syrup is a proprietary Ayurvedic medicine used in the treatment of liver disorders.

**Amlycure tablet:** Amlycure Tablet is a proprietary Ayurvedic medicine used for hepato - protective action.

**Ayuliv syrup:** Ayuliv Syrup is a proprietary Ayurvedic medicine which is indicated in Ayurvedic treatment of Liver dysfunctions, jaundice and hepatitis.

**Kalakuta Rasa:** It is an Ayurvedic medicine in tablet form and is used in the treatment of chronic fever, bronchitis, diabetes, urinary tract infection etc. This medicine contains heavy metal ingredients, hence should only be taken under strict medical supervision.

**Hridayarnava Rasa:** It is an Ayurvedic medicine in tablet form and is used in the treatment of cardiac disorders with difficulty in breathing and heaviness of chest.

**Maha Vishagarbha Taila:** It is a formulation in oil form and is

used for external application to treat neuro - muscular conditions, sciatica etc vata dosha disorder.

[Brihat Sarva Jwarahara Lauh:](#) Brihat Sarva Jwarahar Lauh is an Ayurvedic medicine in tablet form, used in the treatment of fever, anemia, indigestion, splenomegaly and cough.



### **Research articles related to Solanum nigrum:**

[Anti - fungal activity:](#) To determine antifungal activity, aqueous and crude extracts from leaves of *S. nigrum* Linn. was used against *A. niger*, *A. flavus*, *C. albicans* by dry weight method. Extracts prepared using crude solvents exhibited higher antifungal activity as compared to their corresponding aqueous extracts. No good activity was observed in the aqueous extract. The pathogen inhibiting activity was found to be dose dependent.

Hepato - protective action: The aqueous extract of Solanum nigrum significantly decreases the serum enzyme alanine amino transferase (ALT), aspartate aminotransferase (AST), triglycerides (TGL), total cholesterol (TC) and significantly increased the total protein level. Silymarin (100 mg/kg), a known hepato - protective drug used for comparison exhibited significant activity. The morphology of liver cells clearly indicating the treatment of Solanum nigrum against acetaminophen induced liver damage near to normal cells.

Protect against oral mucositis: Aqueous extract of Solanum nigrum leaves (AESN) showed protective effect in both models of oral mucositis; however, the higher dose was more effective in chemotherapy induced oral mucositis.

Anti - oxidant potential: On the basis of our results it is concluded that Solanum nigrum bear potent antioxidant activity. The antioxidants act as defense mechanism that protects against oxidative damage, and include compounds to remove or repair damaged molecules and sufficient intake of anti - oxidants is supposed to protect against diseases.

Anti - seizure action: The aqueous leaf extract produced a significantly ( $P < 0.05$ ) dose dependent protection against electrically - induced seizure in chicks and rats, pentylenetetrazole - induced seizure in mice and rats and

picrotoxin - induced seizure in mice and rats. The anti - seizure property of the extract was potentiated by amphetamine.

### **Classical categorization:**

Charak Samhita - Tikta skanda.

Sushruta Samhita - Surasadi gana.

Astanga Hrudaya - Surasadi gana.

Dhanwantari Nighantu - Karaveeradi varga

Bhavaprakasha Nighantu - Guduchyadi varga.

Shodala Nighantu - Karaveeradi varga

Madanapala Nighantu - Guduchyadi varga

Raja Nighantu - Shatavaryadi varga.

Kaiyyadeva Nighantu - Oushadi varga

Shaligrama Nighantu - Guduchyadi varga

Priya Nighantu - Shatapushpadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Solanales

Family: Solanaceae

Genus: Solanum

Species: S. nigrum

## **71. Red Chilli - Capsicum annum Uses, Research, Remedies, Side Effects**

Capsicum annum is commonly known as red chilli or bell pepper. It is used for the treatment of joint pain, anorexia, lack of appetite, fever, obesity etc.

Latin name - Capsicum annum Linn.

Family - Solanaceae

### **Bell pepper - Names in different languages:**

Hindi name - Lal mirchi

English name - Red Chilly, Bell pepper

Bengali name - Lanka maricha

Kannada name - Menasinakai

Malayalam name - Molagu

Marathi name - Lal mirchi

Telugu name - Mircha kaya

Tamil name - Milagai



## **Sanskrit names of Red chilli -**

Katuveera - The seeds are pungent

Raktamaricha - The fruit is red in color

Pittakarini - Increases pitta dosha

## **Morphology of Capsicum annuum:**

It is a small herb found and cultivated all over India in the temperate climate. The plant grows to a height of 2 - 3 feet with white colored flowers. The fruits are green while unripe and red after ripening. The seeds are flat and pungent in nature. Many varieties are cultivated for its commercial purpose and used for culinary purpose. Although the species name *annuum* means "annual", the plant is not an annual and in the absence of winter frosts can survive several seasons and grow into a large perennial shrub. The plant is a native of

Brazil.



### **Medicinal Properties of Lanka / Katuveera:**



Rasa (Taste) - Katu (Pungent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in

nature), Teekshna (Strong)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha), Pitta vardaka (Increases pitta dosha)

**Part used** - Fruit

**Dosage** - 30 - 60 mg

**Chemical constituents of capsicum annum:**

Red chilly contains capsaicin (0.5 - 1.5%), Capsorubin, Capsanthin, Rubixanthi carotenoids, flavonoids, volatile oil; steroidal saponins (capsicidins, only in seeds). Capsaicin stimulates the circulation and alters temperature regulation; topically desensitizes nerve endings and acts as a local analgesic. Vitamin P has been isolated from the chilies. Vitamin C gradually increases during maturation and reaches maximum at the semi - ripe or pink colored stage and decreases thereafter. The root contains Capsicosides C2, and C3

अरोचरेतः कफवातहारिणी विपाचिनी शोणितपित्तकारिणी ।

मेदोऽक्षिनिद्रोनलमान्द्यहारिणी विसूचिकाम् कृन्तति पित्तकारिणी ॥ (siddha

Bheshaja Manimala)

arocaretaḥ kaphavātahāriṇī vipācinī śoṇitapittakāriṇī |

medo'kṣinidronalamānhyahāriṇī visūcikām kṛntati pittakāriṇī||

(siddha Bheshaja Manimala)



## **Medicinal uses of red chilli:**

- The paste of bell pepper is mixed with butter and applied over the joint area affected with pain and swelling.
- Small pills are prepared from the paste of the Bell pepper along with Camphor and Asafetida and given in the condition of cholera as part of treatment.
- The paste of the fruit of Capsicum annum is applied with paste of sandalwood over forehead to treat headache.
- The paste prepared from the fruit of Katuveera is applied over the area bitten by dog to relieve pain and swelling.
- The powder of bell pepper is mixed with honey or sugar candy and taken in a dose of 3 - 5 g to relieve sore throat and improve the voice.
- The powder of the fruit is consumed in 2 - 3 g with buttermilk to improve the appetite and help in digestion.
- Regular intake of Katuveera in small quantity along with food as spice additive can prevent clotting of blood and is beneficial in cardiac patients.
- The powder of red chilly and dried chilly is used as spice in many cuisines all over the world.

**Adverse effect:** Excess intake of Katuveera can cause ulcers in the stomach, oral cavity and hyper acidity.

## **Ayurvedic medicines containing Katuveera:**

Dazzle ointment: Dazzle Ointment is a proprietary Ayurvedic medicine and it provides fast symptomatic relief. It is useful in joint pain, sprain and low back ache. It reduces pain, stiffness and muscle spasm and improves mobility by restoring range of motion.

Chesol oil: It is a proprietary Ayurvedic medicine useful for the treatment of rheumatic disorders as well as bronchitis.

Jointcare gel: It is a proprietary Ayurvedic medicine useful for the treatment of arthritis, spondylitis and musculoskeletal disorders.

Alopagesic liniment: It is a proprietary Ayurvedic medicine useful for the treatment of arthritis, localized swelling and pain.

## **Research articles about Capsicum annuum:**

Anti - oxidant potential: Nutritionally, sweet peppers are good source of mixture of antioxidants including ascorbic acid, carotenoids, flavonoids and polyphenols it is essential that compositional studies in plant food be carried out to take into account various factors such as cultivars, seasons and pre - and post - harvest conditions that may affect the chemical composition of plant foods.

Anti - inflammatory action: The ethanolic and butanol extracts (200 mg/kg,) presented a significant anti - inflammatory activity toward carrageenan - induced pleurisy model in mice in

comparison to dexamethasone (0.5 mg/kg, s.c.). Among the parameters evaluated, the treatment with these samples inhibited leukocyte migration and reduced the formation of exudate. The contents of flavonoids and total phenolic compounds could be correlated with the antioxidant and anti-inflammatory activities observed for *Capsicum baccatum*.

### **Scientific classification**

Kingdom: Plantae

Order: Solanales

Family: Solanaceae

Genus: Capsicum

Species: C. annum

## **72. Nicotiana tabacum - Tobacco Medicinal Uses, Research**

Tamraparna - Nicotiana tabacum is a plant which is not mentioned in the classical texts of Ayurveda but mentioned in the later texts. It is used for the treatment of joint pain, dental caries, gingivitis, strychnous poisoning and is also used as nerve stimulant.

Latin name - Nicotiana tabacum Linn.

Family - Solanaceae

### **Names in different languages:**

Hindi name - Tambaku

English name - Tobacco

Bengali name - Tamaka

Gujarathi name - Tamaku

Kannada name - Hogesoppu

Marathi name - Tambaku

Malayalam name - Pokal

Tamil name - Poga elai

Telugu name - Pogaku



**Sanskrit Synonym:**

Gucchaphala - The fruits are found in cluster

Kalanj, Tamala

**Morphology and habitat:**

Tamraparni popularly known as Tobacco is a plant cultivated in the plains of India having less rainfall and temperate climate. It is a small annual plant with weak stem and large leaf. It turn to golden brown color when dried and hence the name

Tamraparna. The leaf is later dried and used as tobacco in many products. The flowers are found in clusters. The plant is

a native of America.



**Tobacco medicinal properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Teekshna (Strong), Vyavayi (Penetrating nature)

Veerya (Potency) - Ushna (Hot)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha), Pittavardhaka (Increases pitta dosha)

Prabhava (Special action) - Intoxicating

**Part used** - Dried leaf

**Dosage** - 1 to 2 g



### **Chemical constituents of Tambaku:**

The leaf of the plant contains Nicotine, Anatabine, anatabine, Solanofuran, Bombiprenone etc.

तस्य पत्रं तु तीक्ष्णोष्णं कफवातहरं श्वासकासहं चैव कोष्ठवातहरं तथा॥

वातानुलोमनकरं वस्तिशोधतमुत्तमम् ।

दन्तरुक् शमनं चैव क्रिमिकण्डूवादिनाशनम् ॥ ( यो.र)

tasya patraṃ tu tīkṣṇoṣṇaṃ kaphavātaharaṃ śvāsakāsaḥaṃ  
cairva koṣṭhavātaharaṃ tathā||

vātānulomanakaraṃ vastiśodhatamuttamam |

dantaruk śamanaṃ caiva krimikaṇḍūvādināśanam || ( yo.ra)

### **Uses of Nicotiana tabacum:**

- The dried leaf of tobacco is slightly heated, applied and tied over the joints affected with pain and swelling to reduce the complaints.
- The dried powder of the leaf is an antidote of Strychnous nuxvomica poisoning.
- The dried leaf of tobacco is burnt and the fume is inhaled in small quantity to control cough and snake bite poisoning by inducing vomiting.
- The powder of the dried leaf is kept in the teeth affected with dental caries to relive the pain.
- The dried powder of the leaf is blown through nose to treat cases of sinusitis and headache related to it.
- The dried leaf of tobacco is cardiac and nerve stimulant in dose of 1 to 2 g and hence used in cases of depression.

But people recognize tobacco for its adverse effect due to uncontrolled use. Regular and excess use of tobacco in smoking, chewing and other products lead to addiction and



serious health hazards.



### **Adverse effect of tobacco:**

The regular and increased use of tobacco can lead to oral cancer, lung cancer. Apart from these, in acute cases headache, giddiness, respiratory distress can be seen.

### **Research articles related to *Nicotiana tabacum*:**

**Hypoglycemic effect:** The aim of this study was to investigate the *in vitro* inhibition of  $\alpha$  - amylase and  $\alpha$  - glucosidase by extracts of *N. tabacum* leaf. The observed inhibitions of  $\alpha$  - amylase and  $\alpha$  - glucosidase suggest that the leaf extracts of *N. tabacum* may be useful in the management of Diabetes mellitus, which may due to the presence of phytochemicals.

**In - vitro anthelmintic effect:** Researchers investigated the *in vitro* anthelmintic effect of aqueous and alcoholic extract of Tobacco (*Nicotiana tabacum*) against *M. marshalli*. The result showed that compared with Levamisole 50 mg/ml, dilution of

25 and 50 mg/ml of the aqueous extract had the same anthelmintic effects ( $P > 0.05$ ), but 75 mg/ml dilution of the aqueous extract and dilution of 25, 50 and 75 mg/ml of alcoholic extract had more anthelmintic effect.

### **73. Foxglove *Digitalis purpurea*: Uses, Research, Remedies, Side Effects**

Common Foxglove - *Digitalis purpurea* is an Ayurvedic plant used in the treatment of cough, asthma, fever, cardiac diseases, edema and impotency.

Latin name - *Digitalis purpurea* Linn.

Family - Plantaginaceae

#### **Hrutpatri Names in different languages:**

English name - Digitalis, Fox glove, Lady's glove, Common Foxglove, Purple foxglove

#### **Synonyms of Hritpatri:**

Tila pushpi - The flower resembles like sesame

Hritpatri - The leaf is heart shaped



#### **Morphology of *Digitalis purpurea*:**

It is a small plant growing to a height of 1 - 2 m and is found in

the hilly regions of Kashmir and Himalayan belt. It is also cultivated for its medicinal property. The leaves are cardiac shaped, spirally arranged, simple, 10 - 35 cm long and 5 - 12 cm broad, and are covered with gray - white pubescent and glandular hairs, imparting a woolly texture. The foliage forms a tight rosette at ground level in the first year. The flowering stem develops in the second year, typically 1 - 2 m (3.3 - 6.6 ft) tall, sometimes longer. The flowers are arranged in a showy, terminal, elongated cluster, and each flower is tubular and pendent. The flowers are typically purple, but some plants, especially those under cultivation, may be pink, rose, yellow, or white.

**Common Foxglove medicinal properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light), Rooksha (Dry)

Veerya (Potency) - Sheeta (Cold)

Vipaka - Katu (undergoes pungent taste after digestion)

Karma (Actions) - Kaphavata shamak (reduces vitiated kapha

and vata dosha), Pitta vardaka (Increases pitta dosha)



**Part used** - Dried leaf

**Dosage:**

Leaf powder - 500 mg

**Chemical constituents of Digitalis purpurea:**

Digitoxin, Tigogenin, Digitalin, Gitonin,, Gitosine, Digitoxigenin, Allonegitostin, Digipronin, Digiprolactone, Purpogenin, Purnalosides A&B are the chemical constituents of the leaf of

Digitalis.



### **Uses of Hrutpatri:**

- The powder of Digitalis is given in a dose of 250 mg to 300 mg to treat cough, asthma and inflammation of the lungs.
- The powder of Hrutpatri is given with hot water or cow urine in a dose of 300 - 500 mg to treat pedal edema due to cardiac disease.
- The powder is given to treat erectile dysfunction in a dose of 50 - 100 mg.
- The powder of Digitalis is given in a dose of 50 - 100 mg to treat severe fever.
- To treat insomnia, the powder of the leaf of Digitalis is given with milk.

**Adverse effects of Hrutpatri:** Hrutpatri can cause irregular or increased heart rate and can prove fatal due to the presence

of the chemical digitoxin. Nausea, Excessive salivation, Diarrhea are the initial features of adverse effect. Hence formulations containing Hrutpatri or the herb should be taken under medical supervision only.



### **Ayurvedic medicines containing Hrutpatri:**

**Chiniumco tablet:** It is a proprietary ayurvedic medicine used for the treatment of bleeding from uterus, nose or any external wound.

### **Research articles related to Digitalis purpurea:**

**Hepato - protective action:** The present research was aimed to study the in vivo hepato - protective activity of methanolic extract of Digitalis Purpurea L. in CCl<sub>4</sub> induced hepato toxicity in albino rats. The extract of Digitalis Purpurea L. and silymarin administration prevented the toxic effect of CCl<sub>4</sub> on the above serum parameters in both preventive and curative models. The

present study concludes that, methanolic extract of Digitalis Purpurea Lhas significant hepato protective activity against CCl<sub>4</sub>induced hepatotoxicity,

Cardiac protection: Digitalis is of great value in chronic valvular cardiac disease, with failing or broken compensation, but it must be used with judgment, observing the need in the weak, fast, and irregular pulse, deficient urination, and dropsy. When hypertrophy of the heart overbalances dilatation, and evidences of arterial hyperaemia are present, digitalis is likely to aggravate the condition, or otherwise do harm.



## **74. Rohitaka Tecomella undulata: Uses, Remedies, Side Effects, Research**

Rohitaka - Tecomella undulata is an Ayurvedic herb, used for the treatment of diabetes, jaundice, piles, intestinal worms, leucorrhea and indigestion.

### **Botanical name:**

Tecoma undulata G. Don

Tecomella undulata G. Don

Family - Bignoniaceae

### **Names in different languages:**

Hindi name - Rugtrora/ Rudanti

English name - Desert teak

Gujarati name - Rohido

Kannada name - Mullumuntala

Marathi name - Rohido

Malayalam name - Cemmaram

Punjabi name - Laberra

Tamil name - Malampuluvan

### **Sanskrit Synonyms of Rohitak:**

Dadima pushpa, Dadimaschada - Flowers resemble to that of pomegranate flower

Lohita, Rohita, Raktapushpa - Flowers are red like blood

Kushalmali, Kuta shalmali - Inferior variety of shalmali plant

Plihagna - Help to treat disease of the spleen

Raktaghna - useful in blood vitiation disorders

Sadapushpa, Rochana, Sada prasoon, Parijataka,

### **Morphology:**

Rohitaka is a medium sized tree growing in the Himalayan belt and plains of North and West India to a height of 6 - 10 m. The leaves of the tree resemble to that of pomegranate leaves. The flowers are yellow or bright orange in color are seen in the month of April and May. The tree produces quality timber.

### **Medicinal Properties of Tecomella undulata:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Kaphavpitta shamaka (reduces vitiated kapha and pitta dosha)

Prabhava (Special action) - Pleehagna (Acts against the diseases of the spleen)

**Part used** - Bark

### **Dosage:**

Powder - 1 to 3 g

Decoction - 50 to 100 ml

## **Chemical constituents of Tecomella undulata:**

The bark of the tree contains Tecomin, Tecomelloside, Undulatoside A&B, Tecoside, C27 and C29, B - Sitosterol. The Heart wood contains, Lapachol, Octacosanylacetylferulate, Tectol, Tectoquinone and Undulatin. The root has Tecol and the Leaves has Tacosanol in them.

## **Use of Rohitaka:**

- To treat skin diseases, bath is taken with decoction prepared from the bark of Rohitaka.
- To treat leucorria, the paste prepared from the bark and root of Tecoma undulata is taken with honey in a dose of 3 - 5 g.
- The decoction prepared from the bark of the tree is taken in a dose of 40 - 50 ml to treat diseases related to spleen like splenomegaly.
- The decoction of the heartwood of the tree is useful to control diabetes and jaundice.
- The powder of the bark of Rohitaka is given in a dose of 3 to 4 g to treat indigestion, lack of appetite and intestinal worms.
- Intake of cow urine or water impregnated with powder of rohitaka and haritaki alleviates all types of piles and splenomegaly.

रोहितकः कटुस्तिक्तः सरोष्णः कफवातनुत् ॥

प्लीहोदरयकृतगुल्ममांसमेदोविषापहः ।

भूतानाहविबन्धास्रकफशूलरुजापहः ॥ कै.नि.

रोहितको यकृतप्लीहगुल्मोदरहरः सरः ।

शुष्को रोहितकश्चैव कटूष्णमुभयं स्मृतम् ।

कर्णरोगहरं चैव विषवेगविनाशनम् ॥ ध.नि.

रोहितकः प्लीहघाती रुच्यो रक्तप्रसादनः ॥ भा.प्र.

रोहितकौ कटुस्निग्धौ कषायौ च सुशीतलौ ।

क्रिमिदोषव्रणप्लीहरक्तनेत्रामयापहौ ॥ रा.नि.

rohitakah kaṭustiktaḥ saroṣṇaḥ kaphavātanut ॥

plīhodarayakṛtagulmamāṃsamedoviṣāpahaḥ ।

bhūtānāhavibandhāsarakaphaśūlarujāpahaḥ ॥ kai.ni.

rohitako yakṛtplīhagulmodaraharaḥ saraḥ ।

śuṣko rohitakaścaiva kaṭūṣṇamubhayaṃ smr̥tam ।

karnarogaharaṃ caiva viṣavegavināśanam ॥ dha.ni.

rohītakah plīhaghātī rucyo raktaprasādanaḥ ॥ Bhavaprakasha.

rohitakau kaṭusnigdhou kaṣāyau ca suśītalau ।

krimidoṣavraṇapliharaktanetrāmāyāpahau ॥ rā.ni.

## **Qualities and benefits as per traditional Ayurveda:**

Sara - induces mobility, causes diarrhea, purgation, relieves constipation

Indicated in -

Pleeha - Disease of the spleen, Splenomegaly

Udara - ascites, enlargement of the abdomen

Yakrut roga - liver disorders

Gulma - Tumors of the abdomen

Mamsa meda - diseases of muscle and fat tissues.

Bhuta - psychiatric disorders, anti microbial

Anaha - bloating, fullness

Vibandha - constipation

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Shula - abdominal colic

Ruja - pain

Krimi - worm infestation

Vrana - Ulcers, wounds

Netraroga - eye disorders

## **Adverse effects of desert teak:**

No adverse effect is known or reported after the normal use of Rohitka.

## **Ayurvedic medicines containing Rohitka:**

[Rohitaka lauha](#): Rohitaka Lauha is an Ayurvedic medicine in

tablet or powder form. It is mainly used in the treatment of splenomegaly, liver diseases, jaundice, hepatitis, cough, asthma, fever.

[Rohitaka arishta](#): Rohitakarishta is an Ayurvedic medicine, used in the treatment of liver and spleen related disorders, digestive problem like sprue etc.

[Ashoka compound](#): It is a proprietary Ayurvedic medicine. It ensures synergy of ingredients for relief from common gynecological problems like DUB. It regulates hypothalamo - pituitary - ovarian axis. It reduces frequency and intensity of uterine contractions and thus reduces incidence of habitual abortion.

[Yakrut shula vinashini vatika](#): Yakrut Shula Vinashini Vatika is a tablet, used in Ayurvedic treatment of liver and spleen related diseases.

[Kalmeghasav](#): Kalmeghasav is an effective liquid Ayurvedic medicine used for treating chronic fever, anemia, acne, liver, spleen disorder, skin diseases. It also acts as mild laxative.

[Amlycure DS capsule](#): Amlycure DS Capsule is a proprietary Ayurvedic medicine useful in the management of hepatic diseases.

[Akliv tablet and syrup](#): It is a proprietary ayurvedic medicine useful to treat liver disorders and improve the digestive capacity.

## **Research articles related to *Tecoma undulata*:**

Anti - oxidant activity: The study aims to investigate the methanolic extract of different plant parts (leaves, stems, bark and roots) of *Tecomella undulata* (family Bignoniaceae), for their antioxidant activity and were used for quantitative estimation of the total phenolics as Gallic Acid Equivalent (GAE) per gram dry weight and total flavonoid as Quercetin Equivalent (QE) ) per gram dry weight. Maximum total phenolic content was recorded in stems ( $13.75 \pm 0.125$  mgGAE/gdw) While maximum total flavonoid content was found in leaves ( $71.875 \pm 18.393$  mQE/gdw) and Highest radical scavenging activity is observed in stems with IC 50 value  $92.29 \pm 7.693$ .

In - vitro hyperglycemic activity: This study was undergone to evaluate the *in - vivo* anti - hyperglycemic and antioxidant potential of ethanolic extract of leaves of *Tecomella undulata* Seem. on streptozotocin - nicotinamide induced type 2 diabetic rats. The blood glucose level, cholesterol, glycogen contents, glycosylated hemoglobin, and antioxidant parameters (Malondialdehyde and Glutathione level) were estimated from the blood plasma by using standard kits to demonstrate the hypoglycemic and antioxidant effect in treated animals. The data showed that the extract have significant influence on the above biochemical parameters.

The aim of the present study was to validate the hepato - protective activity of bark of *Tecomella undulata* (Sm.) Seem., Bignoniaceae, against paracetamol (PCM) induced hepatic damage. Chloroform soluble fraction (Fraction - I), acetone soluble fraction (Fraction - II), methanol soluble fraction (Fraction - III) and methanol insoluble fraction (Fraction - IV) of ethanolic extract of bark of *T. undulata* were evaluated for hepato - protective activity against paracetamol induced hepatic damage using biochemical, morphological, functional and histo - pathological studies. The methanol soluble fraction (Fraction - III) was most potent among the four fractions studied in detail.

**Classical categorization:**

Bhava prakasha - Vatadi varga

Dhanvantari Nighantu - Amradi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Shalmalyadi varga

**Scientific classification:**

Kingdom: Plantae

Order: Lamiales

Family: Bignoniaceae

Genus: *Tecomella*

Species: *T. undulata*





## **75. Saireyaka - Barleria prionitis: Uses, Research, Remedies, Side Effects**

Saireyaka - Barleria prionitis is a plant mentioned in Ayurveda for the treatment of skin diseases, burning urination, fever, localized swelling, goiter, dental caries and act like blood purifier.

Latin name - Barleria prionitis Linn.

Family - Acanthaceae

### **Names in different languages:**

Hindi name - Katsareya

English name - Yellow nail - dye plant, Hop headed barleria

Kannada name - Gorantige

Bengali name - Kantajati, Jhanti

Gujarathi name - Kantasairiyo

Malayalam name - Chemmulli

Marathi name - Kalsunda

Tamil name - Shemmuli

Telugu name - Mullu goranti

Sinhalese name - Kattukurandu

Tulu name - Gorantedai



**Synonyms:**

Amlatan - A plant having flowers which will not fade.

Dasi - To cure diseases, this plant is being cut by physician

Bhana - The plant having thorn which are as sharp as arrow.

Kurantaka - It is cut by the people to cure many diseases.

Saireyaka - The plant which grows in sunlight or in open place.

Sahachar - The shrubs grow together in a group.

Mrudu Kantaka - having soft thorns

Varnadya - flowers are colourful

Kinkirantaka

Jhinti - the fruits make peculiar sound



### **Varieties based on colour:**

Pita Saireyaka - Barleria Prionitis Linn - Yellow

Sveta Saireyaka - Barleria Cristata Linn - White

Raktha Saireyaka - Barleria Cristata Linn - Red

Nila Saireyaka - Barleria Strigosa Willd - Blue



### **Morphology of Barleria prionitis:**

Saireyaka is a small shrub growing to a height of 1 - 1.5 m in height and is found in the temperate climate throughout India

and is grown in the garden for its flowers. The plant has small, sharp spikes. The flowers are yellow and are found in clusters. Single seed is found in the small fruits.

The color of the flower may be white, yellow, red or blue depending upon the sub species of the plant.



**Properties:**

Rasa (Taste) - Tikta (Bitter), Madhura (Sweet)

Guna (Qualities) - Laghu (Light for digestion)

Veerya (Potency) - Ushna (Hot)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Whole plant especially leaf

**Dosage** -

Fresh juice - 10 to 20 ml

Decoction - 50 to 75 ml



### **Chemical constituents of Barleria prionitis:**

The plant is reported to be rich in potassium. With the exception of the large amount of a neutral and acid resin soluble in light petroleum ether, nothing of special interest was detected; there was no trace of any alkaloidal principle.

Scutellar - 7 - rhamnosyl glucoside was isolated from flowers.

Structures of iridoids - barlerin and acetyl barlerin were isolated from leaves and stems.

### **Uses of Saireyaka:**

- The paste of the leaf is applied along with yoghurt over the scalp to strengthen the hair and help in the growth of hairs.

- The paste of the leaf of Barleria prionitis is applied over the area affected with localized swelling.
- The decoction of the plant or leaf is given in a dose of 50 ml to treat difficulty and burning urination.
- The paste of the root of Barleria prionitis is applied over the throat to treat goiter.
- The paste of the leaf is applied over the tooth affected with dental caries to relieve pain.
- Sesame oil is processed with the leaf of Saireyaka and oil is prepared which is applied over the scalp to treat alopecia.
- The paste of the leaf is applied over the area affected with skin diseases like scabies and ringworm.
- The cold infusion of the plant of Saireyaka is given in a dose of 50 ml as blood purifier.
- The cold infusion is also given to treat fever associated with burning sensation.
- In children, the juice of the leaf of Barleria prionitis is given with honey in a dose of 20 - 25 ml to treat rhinitis and cough.
- The decoction of the plant or leaf is given in a dose of 50 ml to treat gout and cases of poison.
- The flower of the plant is used for decorative purpose in home.

The drug saireyaka is recommended in coryza, cough (caused by kapha) and especially in children cough and whooping cough. The leaves are cooked in oil which is applied on ulcers and wounds. Externally the leaves are applied on scabies, itching, dermatosis and other skin diseases.

The leaves juice of sveta saireyaka mixed with jeeraka is used in spermatorrhoea. Roots are taken in dysuria. Saireyaka is useful in oedema, blood impurities, vataraktha, upadamsha, nervine debility, poisons and skin diseases. In vatakaphaja jvara, the leaves juice is given.

The root of saireyaka and jivanthi pounded with goat's milk and mixed with ghee is prescribed to be applied as paste in vataraktha. (A.H.ci 7/33)

In rat poisoning the root of saireyaka mixed with honey is suggested for oral use. ( A.H,uttara,38/30)

For treatment of cyst in blood vessels ( sira grandhi ) the oil of saireyaka is recommended in acute stage ( A.S, uttara, 35/13).

The root of saireyaka rubbed with water is suggested for use by pregnant mother in order to develop foetus perfectly ( Gadanigraha, 24/5 - 6 )

The juice of bana leaves and lakucha mixed with oils is applied locally for eradicating kushta ( Vrudha madhava, 11/38 )



The juice of the leaves is slightly bitter and acid. It is generally administered in a little honey or sugar in catarrhal affections of children which are accompanied by fever and much phlegm.

A paste of the root is applied to boils and glandular swellings.

Erysipelas : In erysipelas caused by kapha, the paste of khdira, saptaparna, musta, aragvadhya, dhava, kurantaka and devadaru should be applied. ( C.S, ci, 21/88 )

Calculus : Saireyaka is one of the ingredients of kusadya ghrta ( A.H.ci, 11/23 )

Eye diseases : In pterygium, after operation, the eye should be sprinkled with haridra, daruharidra, lodhra, pattola, madhuyasti, palasa and flower buds of saireyaka mixed with honey ( A.H. v, 11/22)

Greying of hairs : Oil 160ml should be cooked with 640ml of milk and juice of saireyaka, bhrangaraja and tulasi along with paste of madhu yastimadhu 40 gm and then kept in a strong

container or sheep horn ( A.H.u. 24/37 - 38 )

सैरेयकः सहचरः सैरेयो मृदुकण्टकः ॥

कोमलप्रसवो दासी वर्णाद्यः किङ्करान्तकः ।

झिण्टी सहचरोऽम्लानः सैर्यकश्च महासहा ॥

रक्तपुष्पः कुरुबकः पीतपुष्पः कुरण्टकः ।

नीलपुष्पस्त्वार्तगलो राजसैरेयकः स्मृतः ॥

बाणस्त्वोदनपाकी स्यात् शाणकः केशरञ्जनकः ।

सैरेयो मधुरःस्निग्धस्तिकोष्णः केशरञ्जनः ॥

केशयो बलासवातास्रकुष्ठकण्डूविषं जयेत् । कैयदेवनिघण्टु - ओषधिवर्ग

सैरेयकः सहचरः सैरेयश्च सहाचरः ।

पीतो रक्तोऽथ नीलश्च कुसुमैस्तं विभावयेत् ॥

पीतःकुरण्टको ज्ञेयो रक्तः कुरबकः स्मृतः ।

कुरण्टको हिमस्तिकः शोफतृष्णाविदाहनुत् ।

केशयो वृष्योऽथ बल्यश्च त्रिदोषशमनो मतः ॥ धन्वन्तरिनिघण्टु -

गुडूच्यादिवर्ग

सैरेयकः श्वेतपुष्पः सैरेयः कटसारिका ।

सहाचरः सहचरः स च भिन्ध्यपि कथ्यते ॥

कुरण्टकोऽत्र पीते स्याद्रक्ते कुरबकः स्मृतः ।

नीले बाणा द्वयोरुक्तो दासी आर्तगलश्च सः ॥

सैरेयः कुष्ठवातास्रकफकण्डूविषापहः ।

तिकोष्णो मधुरोऽनम्लः सुस्निग्धः केशरञ्जनः ॥ भावप्रकाश - पुष्पवर्ग

saireyakaḥ sahadaraḥ saireyo mṛdukaṅṭakaḥ ॥

komalaprasavo dāsī varṇādyāḥ kiṅkarāntakaḥ ।

jhiṅṭī sahacaro'mlānaḥ sairyakaśca mahāsahā ||  
raktapuṣpaḥ kurūbakaḥ pītapuṣpaḥ kuraṅṭakaḥ |  
nīlapuṣpastvārtagalo rājasaireyakaḥ smṛtaḥ ||  
bāṅastvodanapāki syāt śāṅakaḥ keśarañjanaḥ |  
saireyo madhuraḥsnigdhasstiktoṣṇaḥ keśarañjanaḥ ||  
keśyo balāsavātāsrakuṣṭhakaṅḍūviṣaṃ jayet |  
kaiyadevanighaṅṭu - oṣadhivarga

saireyakaḥ sahacaraḥ saireyaśca sahācaraḥ |  
pīto rakto'tha nīlaśca kusumaistaṃ vibhāvayet ||  
pītaḥkuraṅṭako jñeyo raktaḥ kurabakaḥ smṛtaḥ |  
kuraṅṭako himastiktaḥ śophaṭṛṣṇāvidāhanut |  
keśyo vṛṣyo'tha balyaśca tridoṣaśamano mataḥ ||  
dhanvantarinighaṅṭu - guḍūcyādivarga

saireyakaḥ śvetapuṣpaḥ saireyaḥ kaṭasārikā |  
sahācaraḥ sahacaraḥ sa ca bhindyapi kathyate ||  
kuraṅṭako'tra pīte syādrakte kurabakaḥ smṛtaḥ |  
nīle bāṅā dvayorukto dāsī ārtagalaśca saḥ ||  
saireyaḥ kuṣṭhavātāsrakaphakaṅḍūviṣāpahaḥ |  
tiktoṣṇo madhuro'namlāḥ susnigdhaḥ keśarañjanaḥ ||  
bhāvaprakāśa - puṣpavarga

### **Uses as per Ayurveda:**

Kesharanjana - used in colouring hair

Keshya - Improves hair strength, promotes hair growth

Vrushya - aphrodisiac, improves vigor

Balya - improves strength and immunity

### **Indicated in -**

Vatasra - Gout

Kushta - skin diseases

Kandu - itching, pruritis

Visha - Toxic conditions, poisoning

**Adverse effect of Saireyaka:** No adverse effect is seen after the normal use of Saireyaka.

### **Ayurvedic medicines containing Saireyaka:**

Rasnadi ghrita: Rasnadi ghritam is a herbal medicated ghee formulation used for the treatment of rheumatoid arthritis and Vata related disorders associated with pain.

Rasnadi kashaya: This is a formulation in decoction form and is useful to treat arthritis, pain and other vata disorders.

Saptasaram kashaya: This is a decoction useful to treat hip pain, lower back pain, constipation, low digestion power, and menstrual pain.

Vathapy capsule: It is a proprietary ayurvedic medicine in capsule form and is useful to treat paralysis, Tones up nerves, muscles, brain and liver by improving the blood circulation.

Geecare: It is a proprietary Ayurvedic medicine in treating dental caries, gingivitis and maintain oral care.

## **Research articles related to Barleria prionitis:**

**Anti - diabetic activity:** Alcoholic extract of leaf and root of *B. prionitis* was tested for their anti - diabetic activity. Animals treated with the alcoholic extract of leaves of *B. prionitis* Linn showed a significant decrease in blood glucose level ( $P < 0.01$ ) and glycosylated hemoglobin ( $P < 0.01$ ). A significant increase was observed in serum insulin level ( $P < 0.01$ ) and liver glycogen level ( $P < 0.05$ ), whereas the decrease in the body weight was arrested by administration of leaf extract to the animals. The alcoholic extract of roots showed a moderate but non - significant anti - diabetic activity in experimental animals.

**Anti - arthritic activity:** The present investigation was designed to evaluate anti - arthritic potential of ethyl acetate fractions of chloroform extract from leaves of *Barleria prionitis*. Dose dependent and significant inhibition of oedema was observed in both acute as well as chronic models. The extract at dose 250 mg/kg showed most potent and significant ( $P \leq 0.05 - 0.01$ ) paw oedema inhibition which is supported by the results of body weight, biochemical parameters, motor incoordination and nociceptive threshold in Freund's Complete Adjuvant - induced arthritis model.

**Anti - oxidant potential:** The aim of the present work was to investigate the antioxidant potential of different extracts of *Barleria prionitis* leaf and stem. The antioxidant capacity of

methanolic extract of both the part, i.e. leaf and stem were founded highest as IC50 values were  $63.41 \pm 0.32$ ,  $81.69 \pm 0.40$  respectively. The reducing power was also highest in the methanol extract of both parts.

### **Classical categorization:**

Bhavaprakasha - Pushpa varga - flower bearing group of plants

Dhanvantari Nighantu - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nigantu - Karaveeradi varga

### **Scientific classification**

Kingdom: Plantae

Order: Lamiales

Family: Acanthaceae

Genus: Barleria

Species: B. prionitis

## **76. Kokilaksha Asteracantha longifolia: Uses, Research, Side Effects, Remedies**

Kokilaksha - Asteracantha longifolia is a plant mentioned in Ayurveda for the treatment of general debility, jaundice, distention of abdomen, swelling, difficulty in urination and impotency.

Latin name - Asteracantha longifolia Nees. Hygrophila auriculata, Hygrophila spinosa, Hygrophila auriculata

Family: Acanthaceae

### **Names in different languages:**

Hindi name - Kokilaskha, Talimakhana

English name - Hygrophila

Bengali name - Kulimakada, Kaatakalia

Gujarathi name - Ekharo

Marathi name - Talimakhana

Tamil name - Nirmuli

Telugu name - Neerugubbi

### **Synonyms -**

Ikshura, Ikshuraka, Ikshubalika, - The stem resembles sugarcane

Vajrasthi, Vajrakantaka - the plant looks like diamond shaped in cross section

Chulli, Taila ghanika, Kshura, Dhvanga, Ikshugandhika

Kadamba shali, Brihat Kesha, Bhikshu, Pikekshana,

Bhuvanasammita, Picchila,  
Shrugali, Shrunkhala,

### **Morphology of Asteracantha longifolia:**

Kokilaksha is a small plant growing to a height of 3 - 5 feet with small thorns or hairy parts all over the plant. The stem resembles to that of sugarcane. The flowers of the plant are of purple color. The seed are black in color and it swell and becomes slimy when it comes in contact with water or saliva. Flowers and the fruits are seen in the month of September to November. The plant is found all over India near water source, fields and marshy land.

Hygrophila auriculata is also used as synonym for Asteracantha longifolia.

### **Properties:**

Rasa (Taste) - Madhura (Sweet)

Guna (Qualities) - Guru (Heavy), Snigdha (Slimy)

Veerya (Potency) - Sheeta (Cold)

Vipaka - Madhura (Undergoes Sweet taste after digestion)

Karma (Actions) - Vatapitta shamaka (reduces vitiated vata and pitta dosha)

**Part used** - Root, Seed

### **Dosage -**

Decoction - 5 to 10 ml

Seed powder - 3 to 5 g



## **Chemical constituents:**

The plant gave lupeol, stigmasterol and hydrocarbons, the seed gave sterols and the flowers have apigenin glucuronide.

## **Uses of Kokilaksha:**

- The decoction of the root of *Asteracantha longifolia* is given in a dose of 10 ml to treat jaundice and swelling of the body.
- The powder of the seed is given in a dose of 2 - 4 g with milk to treat impotency, less sperm count and general debility.
- The ash prepared by burning the dried plant (Kshara) is given with decoction of *Tribulus terrestris* to treat renal calculi.
- The cold infusion of the seed of *Asteracantha longifolia* is given in a dose of 25 - 30 ml to treat hepatomegaly and bloating of the abdomen.
- The ash of the plant of Kokilaksha is mixed with cow urine and given to treat swelling of the body (Anasarca).
- The cold infusion of the seed of Kokilaksha is given to improve the passage of urine.

कोकिलाक्षो हिमस्तिकः स्वाद्वम्लः स्निग्धपिच्छिलः ॥

वृष्यो वातामवाताश्मतृष्णादृष्टिखुडास्रजित् ।

इक्षुरस्य दलं स्वादु तिक्तं शोफविषापहम् ॥

शूलपाण्डूदरानाहवातमूत्रविबन्धनुत् । कै. नि.

क्षुरकः शीतलो वृष्यः स्वाद्वम्लः पित्तलस्तथा ।

तिक्तो वातामशोथाश्मतृष्णादृष्ट्यनिलास्रजित् ॥ भा.प्र.

कोकिलाक्षस्तु मधुरः शीतः पित्तातिसारनुत् ।

वृष्यः कफहरो बल्यो रुच्यः सन्तर्पणः परः ॥ रा.नि.

kokilākṣo himastiktaḥ svādvamlaḥ snigdhapicchilaḥ ॥

vṛṣyo vātā mavātāśmatṛṣṇādrṣṭikhudāsrajit |

ikṣurasya dalaṃ svādu tiktaṃ śophaviṣāpaham ॥

śūlapāṇḍūdarānāhavātāmūtravibandhanut | kai. ni.

kṣurakaḥ śītalō vṛṣyaḥ svādvamlaḥ pittalastathā |

tikto vātāmaśothāśmatṛṣṇādrṣṭyanilāsrajit ॥ Bhavaprakasha.

kokilākṣastu madhuraḥ śītaḥ pittātisāranut |

vṛṣyaḥ kaphaharo balyo rucyaḥ santarpanaḥ paraḥ ॥ rā.ni.

### **Kokilaksha uses as per Ayurveda:**

Vrushya - aphrodisiac, improves vigor

Balya - improves strength and immunity

Ruchya - improves taste, relieves anorexia.

Santarpana - Nourishing

### **Indications:**

Vataroga - Vata Dosha imbalance disorders such as neuralgia,

paralysis, constipation, bloating, etc

Amavata - rheumatoid arthritis

Ashmari - Kidney and bladder stones

Trushna - excessive thirst

Drushtiroga - vision related disorders

Asra - blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding etc.

Shopha - inflammation

Visha - Toxic conditions, poisoning

Shoola - abdominal colic pain

Pandu - anemia

Udara - ascites, enlargement of the abdomen

Anaha - bloating, fullness

Vatamutra - dysurea

Vibandha - constipation

Vatarakta - Gout

**Adverse effects of Kokilaksha:** There are no known side effects with this herb.

**Formulations containing Kokilaksha:**

[Kokilaksha kashaya:](#) Kokilaksha Kashayam is an Ayurvedic medicine used in treating jaundice, anemia, rheumatoid arthritis, gout and hepatic conditions. It is in herbal decoction form.

Chopachinyadi choorna: Chopchinyadi Churna is an Ayurvedic medicine, in herbal powder form. It is used in treating insect bite, rheumatoid arthritis, gout arthritis.

Biogest capsule: It is a proprietary ayurvedic medicine in capsule form used for improving the defense mechanism of the body.

Ashwamed capsule: Ashwamed Capsule is a proprietary Ayurvedic medicine and used to treat male sexual dysfunction, premature ejaculation and erection problems.

Rathi capsule: It is a proprietary Ayurvedic medicine and is useful to tone up male reproductive organ and functions, enhances virile power and reduces sexual weakness. It enables better retention power and ensures longer sexual pleasure.

Cardiraksh capsule: It is a proprietary medicine in capsule form useful to control hypertension, stress and lower down the lipid profile level.

### **Research articles about *Asteracantha longifolia*:**

On hematological factors: A haematological study was performed using Swiss albino rats (90 - 110 g) of either sex. Haematological parameters were evaluated in the anaemic animal model. These samples were evaluated for haematological parameters (erythrocyte count, leukocyte count, haemoglobin count and haematocrit value) using haematology cell counter (ERMA, Japan), repeatedly (five

times) to check the reproducibility of results. A significant lowering in blood parameters was observed.

Evaluation of anti - cancer activity: The objective of the study is to explore the anticancer activity of the methanolic extract of *A. longifolia* on 7,12 - Dimethylbenz (a) anthracene (DMBA) - induced mammary carcinogenesis in rats. The anticancer activity of the methanolic whole plant extract of *A. longifolia* was evaluated in Sprague Dawley rats in the mammary tumor induced by DMBA. The results showed that the methanolic extract of *A. longifolia* was more effective in inhibiting the tumor growth and safe in DMBA - induced mammary tumor in rats as compared to the standard drug, cyclophosphamide.

Anti - microbial activity: The antibacterial and antifungal activity of methanolic extract of *Asteracantha longifolia* Nees has been evaluated against 4 Gram positive bacteria, 7 Gram negative bacteria and 7 fungi. The extract showed varying degrees of antimicrobial activity with zone of inhibition ranging from 15.0 to 26.0 mm. *A. longifolia* demonstrated significant zone of inhibition against all experimental bacteria.

Hepato protective action: This study was aimed to investigate the phytochemical constituents, antioxidant activity and hepatoprotective activity of *Asteracantha longifolia* leaf extract. Hepatotoxicity was induced in normal albino rats.

Phytochemical screening of aqueous extract of *A. longifolia* leaves indicates the presence of flavonoids, tannins, glycosides, phenol, steroids, alkaloids, quinone, saponin, and coumarin. Supplementation of *A. longifolia* significantly restored the liver markers, lipid profile, and antioxidant markers on in CCl<sub>4</sub> induced Wistar albino rats.

**Classical classification:**

Charaka samhita - Shukra shodana

Bhavaprakasha - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Shatahvadi varga

**Scientific classification:**

Family - Acanteaceae

Kingdom - Plantae

Order - Lamiales

Family - Acanthaceae

Genus - Hygrophila

## **77. Kalamegha (Bhunimba) Andrographis paniculata: Uses, Side Effects**

Kalamegha - Andrographis paniculata is an Ayurvedic herb, used for the treatment of diseases of the liver, skin diseases, lack of appetite, fever and purification of the blood. It is called Nilavembu in Tamil.

Latin name - Andrographis paniculata Nees.

Family - Acanthaceae - Vasa Kula

### **Names in different languages:**

English - The creat

Hindi name - Kalamegha, Kalpanath

Bengali name - Kalamegh

Gujarathi name - Kariyathu, Litu Kariyat

Kannada name - Nelabevu

Marathi name - Kiriath

Malayalam name - Nelavepu, Nelavemu, Nilavaepu

Tamil name - Nelavemu, Nilavembu, Nilavempu, Nilavembu  
kudineer

Telugu name - Nelavemu

Urdu name - Bhooinimo

## THE KING OF BITTER

*Andrographis  
paniculata*



### **Sanskrit Synonyms of Kalmegh:**

Yavatikta, Kalpanath, Yavakharaphala, Shankini, Bhunimba.

### **Morphology of Andrographis paniculata:**

Kalamegha is a small herb growing to a height of 1 - 3 feet and is found all over plains of India. The stem is weak and has small hairs at the top. The flowers are small and white or purplish in color. The fruits are small, round and the seeds are pale brown in color. The flowers and fruits are seen in spring to



summer season.



**Distribution:**

Plant is found throughout India, especially in West Bengal. Generally it is found in gardens, rural areas & waste places . It is also found in Central India , Kerala , Assam , Andra Pradesh , Bihar , West Bengal & other provinces in India.

कालमेघस्तु भूनिम्बो यवाकारफलस्तथा ।

सुतिकः लघुरुक्षोष्णाः कफपित्तविनाशकृत् ॥ ( द्र. गु. वि)

kālameghastu bhūnimbo yavākāraphalastathā |

sutiktaḥ laghurukṣoṣṇāḥ kaphapittavināśakṛt ॥ ( dra. gu. vi)

## **Bhunimba - medicinal properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha)



**Part used** - Whole plant

**Dosage** -

Juice - 5 to 10 ml

Powder - 1 to 3 g

Decoction - 20 - 30 ml

**Andrographis paniculata chemical constituents:**

Whole plant contains lactones - andrographolide , 14 - deoxy , 11 - oxo andrographolide , 14 - deoxy 11 , 12 - didehydro -

andrographolide , 14 - deoxy andrographolide & meandrographolide , iridoid glucoside , 5 - hydroxyl - 3 , 78 2' - tetraancthoxyflavone, flavonoid 5 - hydroxyl - 7, 8 - dinecthoxy flavone glucoside ncoandrographolide,. The roots contain andrographin, panicolin, apigenin, andrographolide, flavone andrographone, flavonoid glucoside 2'5 dihydroxy - 7, 8 - dimethoxy flavone - 2 - O  $\beta$  glucoside & 3  $\beta$  hydroxy - 5 - stignuasa - 9 (11) 22(23) - diene.



### **Uses of Kalamegha:**

- In case of nausea and vomiting, the paste of Bhunimba is given with honey.
- The decoction of *Andrographis paniculata* is given in a dose of 20 - 30 ml to treat fever, inflammation of the liver and jaundice.

- The cold infusion of the plant is given in a dose of 40 - 50 ml to treat impurity of the blood and is used as blood purifier.
- The paste of the plant is used to treat skin diseases like eczema, depigmentation of skin etc.
- The powder of the dried plant is given in a dose of 2 - 3g with hot water or juice of Shunti to improve the appetite and digestion.
- The powder of *Andrographis paniculata* is given in a dose of 2 - 3 g with powder of black pepper to treat malaria and fever.

### **Uses of Kalamegha as per Ayurveda:**

Yakrut uttejaka - stimulates liver

Pittasaraka - lets out Pitta from the body

Recana - useful in expelling vitiated Pitta

Krimighna - useful in worm infestation

Svedajanana - stimulates sweating, useful in fever

Kusthaghna - useful in skin disorders

Jvaraghna - useful in fever

Katupaustika - bitter pungent, yet nourishing.

### **Side effect:**

It is a very bitter herb and lowers blood sugar levels. Care should be taken while prescribing this to diabetic patients who are under treatment. This, along with their regular diabetes

medicine can lower the blood sugar level drastically.

No other adverse effect is known or reported after the normal use of Kalamegha

### **Formulations containing Kalamegha:**

Arjin tablet: This is a proprietary ayurvedic medicine used for the treatment of hypertension.

Clearliv tablet: This is a proprietary ayurvedic medicine used for the treatment of hepatic diseases like jaundice, fatty liver etc.

Muniliv tablet: It is a medicine useful for the treatment of hepatic diseases, acts like anti - oxidant and immuno modulatory purpose.

Gopichandanadi gulika: It is a ayurvedic medicine useful to treat fever, common cold and convulsion.

Biolivac tablet: It is a medicine useful to treat liver disorders like jaundice, fatty liver and promotes digestion and appetite.



## **Research articles related to Andrographis paniculata:**

Anti - bacterial activity: The present study was conducted to investigate the antibacterial effect of Andrographis paniculata against selective human pathogens. The results reveal that 75µl was optimum for all the test cultures. It shows more activity in E.coli(32.3mm) followed by S. Typhi(28.1mm), Staphylococcus sp.(14.1mm) and Pseudomonas sp.(13.4 mm).

Hepato - protective action: The effect of Andrographis Paniculata extract was studied on CCL4 induced hepatic damage in rats. The degree of protection was measured by physical, biochemical changes. Pre - treatment with extract significantly prevented the physical, biochemical changes induced by CCL4 in the liver. The effects of Andrographis paniculata could be useful in preventing chemically induced acute liver injury. It can be concluded that the aqueous extract of A.Paniculata almost significant effective in the standard drug.

Anti - oxidant and Anti - microbial study: The purpose of this study was to evaluate the in vitro antioxidant activity of the Hexane, DCM and Methanol extracts of Andrographis paniculata Nees. In DPPH assay, the IC<sub>50</sub> values obtained for Hexane, DCM and Methanol extracts were 223.3µg/ml, 69.32µg/ml and 82.23µg/ml respectively. In the Total reducing capacity assay, activity increased in dose dependent manner for all the three

plant extracts. The antimicrobial activity of the extracts was evaluated using the Broth Dilution Method. The results obtained in the present study indicate that the leaves of *Andrographis paniculata* showed the best antibacterial activity against the gram positive organisms ie; *S.aureus* and *S. pyogenes*.



### **Adultrants**

Kalmegh is substitute of kiratatikta on account of bitterness & it is also an adulterant of **[kiratatikta - Swertia chirata](#)**.

### **Systemic classification:**

Kingdom - Plantae

Phyllum - Angiopherneae

Class - Magnatiatae

Order - Scrophalarialus

Family - Acanthaceae

## **78. Utangana Blepharis edulis: Uses, Side Effects, Research**

Utangana - Blepharis edulis is an Ayurvedic herb, used for the purpose of treating low sperm count, difficulty in micturition and acts as aphrodisiac.

Latin name - Blepharis edulis Pers.

Family - Acanthaceae

### **Names in different languages:**

Hindi name - Utanjana, Uttanjan

Bengali name - Shushani

Gujarati name - Utangana/uttingana

Marathi name - Utangana

Malayalam name - Karad

Persian name - Anjar

Punjabi name - Utangana

Telugu name - Maneshaklu

**Synonyms:** Uttingana, Utanjana

### **Morphology of Blepharis edulis:**

Utangana is a small shrub growing to a height of 1 - 2 feet, covered in soft, grey hairs. It is found all over the plains of North India. It has many serrated leaves that have prickles attached to them. The flowers are a yellowish color. Its capsules contain two seeds that are heart - shaped, smooth,



shining, and brownish in color. The fruits are small, pale brown and shining in nature.

**Varieties:**

Blepharis edulis - Utangana

Blepharis liniriacfolia - Ucchata

Blepharis sindica - Sindhi utangana

**Medicinal Properties:**

Rasa (Taste) - Madhura (Sweet), Tikta (Bitter)

Guna (Qualities) - Guru (Heavy), Snigdha (Slimy)

Veerya (Potency) - Ushna (Hot)

Vipaka - Madhura (Undergoes sweet taste after digestion)

Karma (Actions) - Vatahara (reduces vitiated vata dosha)

**Part used** - Seeds, Leaf

**Dosage -**

3 to 6 g of seed powder

10 to 20 ml of leaf decoction

**Chemical constituents of Blepharis edulis:**

The seed contains Allantonin - 2.1%, Blepharin - a glucoside, Di allantonin, Blepharigenin, B - Sitosterol and D - Glucosoil.

उटंजनस्य बीजं तु गुरु स्निग्धं सुपिच्छिलम् ।

मधुरं तिक्तमुष्णं च वृष्यं मूत्रलमुच्यते ॥ ( द्र.गु.वि)

uṭaṃjanasya bījaṃ tu guru snigdhaṃ supicchilam |

madhuraṃ tiktamuṣṇaṃ ca vr̥ṣyaṃ mūtralamucyate|| ( dra.gu.vi)

### **Medicinal Uses of Utanjan:**

- The seed of Utangana is boiled with milk and consumed to increase the sexual vigor in males.
- The seed powder of *Blepharis edulis* is used as aphrodisiac in a dose of 2 to 3 g with luke warm milk.
- The paste of the leaf of Utangana is applied over bleeding piles, wounds to control and arrest bleeding.
- The decoction of the leaf of the plant (10 - 15 ml) is given with goat milk in cases of tuberculosis.
- Cold infusion of the leaf of *Blepharis edulis* is given in a dose of 30 - 40 ml to treat hepatitis.
- The fresh leaf of the plant is applied as paste over the skin affected with sun burns and fire.
- The cold infusion of the root and stem of Utangana is consumed in a dose of 30 - 40 ml to treat burning micturition and urogenital infection.

**Adverse effects:** No known adverse effect is reported

### **Formulations containing Utangan:**

[Kumaryasava](#): It is a medicine in liquid form used for the

treatment of abdominal distention, bloating, respiratory conditions like cough, cold, wheezing, piles etc.

Vimfix tablet: It is a proprietary medicine useful to treat the quality and quantity of the sperm and strengthens the male reproductive system.

### **Research articles related to *Blepharis edulis*:**

Anti - microbial study: The extracts of plant aerial parts were screened for total phenolic content (TPC) gallic acid equivalents (GAE), total flavonoid compound (TFC) quercetin equivalents (QE), antioxidant capacity and its antimicrobial activity by micro broth dilution assay. The 50% - inhibition values of BHT and 70% (v/v) aqueous ethanol, 70% (v/v) aqueous methanol, methanol, and water extracts of *B.edulis* according to the DPPH method were found to be 19.6, 71.2, 73.7, 81.4, and 218.4 mg/ml, respectively. TPC ranged from 38.9 to 102.7 mg GAE/g dry extracts. The antimicrobial activity showed that yeast and fungi were sensitive and resistant microorganisms to the extracts. The 70% - methanol extract showed more drastic antimicrobial activity than the others. The antimicrobial activity of ethanolic extract is the same as of the methanolic extract; water extract had the weakest antimicrobial activity.

Aphrodisiac potential: The present study is aimed to investigate the effect of ethanolic extract of *Blepharis edulis* Linn. on general mating behaviour, libido, and adverse effects on

sexually normal male albino mice. The most appreciable effect of the extract was observed at the dose of 500 mg/kg. The results indicated that the ethanolic extract of *Blepharis edulis* Linn. produced a significant and sustained increase in hormonal levels of testosterone indication for the sexual activity of normal male mice without any adverse effects.

### **Classical categorization:**

Charaka samhita - Shukrajanan Varga

Astanga sangraha - Shukrajanan

Adarsha nighantu - Vasadi varga

Dhanvantari nighantu - Guduchyadi varga

Kaiyyadeva nighantu - Ousadhi varga

### **Systemic classification:**

Kingdom - Vegetable

Subkingdom - Phanerogamia

Division - I - Angiospermia

Class - I - Dicotyledons

Natural order - Acanthaceae

Genus - *Blepharis*

Species - *Edulis*

### **Controversies:**

It is one among most controversial drugs in Indian medicinal plant.

Bapalal vaidhya Considered Utangana as Uchchata based on its

aphrodisiac property.

According to P.V Sharma Ucchata cannot be considered as Utangana. He mentions swet gunja for Ucchata.

According to Bhavaprakash it is more convenient to consider Ucchata as swet gunja.

According to katipeya Ucchata is swet durvarika.

## **79. Bhandira Clerodendrum infortunatum: Uses, Research, Remedies**

Bhandira - Clerodendrum infortunatum is an Ayurvedic herb used for the treatment of wounds, skin diseases, liver disorders, intestinal worms, fever and joint pain.

Latin name - Clerodendrum infortunatum Linn.

Family - Verbenaceae

### **Names in different languages:**

Hindi name - Bhant, Ghato

English name - Hill glory bower

Bengali name - Bhant, Ghentu

Gujarathi name - Bhanua

Kannada name - Basavana Pada, Ibbane

Marathi name - Bhandira, Kari, Bhat

Malayalam name - Peruku, Peravellam

Punjabi name - Kalibasuti

Tamil name - Perugilai, Karukanni

Telugu name - Basavanapadu, Gurrapu

Burmese name - Bujiphyu, Kaaungguly

Nepalese name - Chitu

Uttaranch name - Bhanua

### **Sanskrit Synonyms:**

Bhandir, Bhandi, Bhantaka

### ***Clerodendrum infortunatum* morphology:**

It is a flowering shrub or small tree, and is so named because of its rather ugly leaf. The stem is erect, 0.5 - 4 m high, with no branches and produce circular leaves with 6 inch diameter. The flowers are white with purplish pink or dull - purple throat, pubescent. Fruit berry, globose, turned bluish - black or black when ripe, enclosed in the red accrescent fruiting - calyx. The stem is hollow and the leaves are 6 - 8 inch (15 - 20 cm) long, borne in whorls of four on very short petioles. The inflorescence is huge, consisting of many tubular snow white flowers in a terminal cluster up to 2 ft (0.6 m) long. The tubes of the flowers are about 4 inch (10 cm) long and droop downward, and the expanded corollas are about 2 inch (5 cm) across. The fruits are attractive dark metallic blue drupes, about a half inch in diameter. Fruit usually with 4 dry nutlets and the seeds may be with or without endosperm. It flowers from April to August.

### **Bhandeera medicinal properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light), Ruksha (Dry), Teekshna (Strong)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Leaf is the main used part.

Root and flowers are also used rarely.

**Dosage** -

Decoction - 10 to 20 ml

**Chemical constituents of *Clerodendrum infortunatum*:**

The major compounds are sterols, sugars, flavonoids and saponins. Novel crystalline compounds such as clerodolone, clerodone, clerodol and a sterol designated clerosterol have been isolated from the root. Seven sugars namely raffinose, lactose, maltose, sucrose, galactose, glucose and fructose were identified. Fumaric acid, caffeic acid esters,  $\beta$  - sitosterol and  $\beta$  - sitosterol glucoside were isolated from the flowers. Apigenin, acacetin and a new flavone glycoside, characterised as the methyl ester of acacetin - 7 - O - glucuronide are isolated from the flowers. Saponin is one of the major compounds of the leaf. 24 beta - ethylsterols, clerosterol and 22 - dehydroclerosterol, 24 - methyl - sterols (24 - methylcholestanol, 24 - methylcholesterol, 24 - methyl - 22 - dehydrocholesterol, and 24 - methylathostero) and 24 beta - ethyl - 22 - dehydrocholestanol are found in the seeds. Scutellarin and hispidulin - 7 - O - glucuronide are present in



the leaf. Poriferasterol and stigmasterol are the components of the aerial parts.

### **Distribution:**

It is found throughout India, commonly in forest and in road side, as weed.

It grows about 0.9 - 2.4 metre height.

It is also found in Ceylon, Malayan region, found in temperate region of India.

भाण्डीरः लघुतिकोष्णः कफवातविनाशकृत्॥

पित्तरेची कृमिघ्नञ्च सरो ज्वरनिषूदनः।

कुष्ठे ज्वरेत्वामवाते मधुमेहे प्रशस्यते॥ (द्र.गु.वि)

भाण्डीरस्तण्डुलीबीजो मेघनादो घनस्वनः ॥११५॥

तण्डुलीयो विषघ्नश्च रूक्षः शीततर शुचिः ।

मधुरो रसपाकाभ्यां रक्तपित्तापघातकः ॥११६॥ध.नि.

भाण्डीरस्तण्डुलीबीजो विषघ्नश्चाल्पमारिषः ॥१०॥

तण्डुलीयो लघुः शीतो रूक्षः पित्तकफास्रजित् ।

सृष्टमूत्रमलो रुच्यो दीपनो विषहारकः । भा.प्र.

bhāṇḍīraḥ laghutiktoṣṇaḥ kaphavātavināśakṛt|

pittarecī kṛmighnañca saro jvaraniṣūdanaḥ|

kuṣṭhe jvaretvāmavāte madhumehe praśasyate|| (dra.gu.vi)

bhaṇḍīraṣṭaṇḍulībījo meghanādo ghanasvanaḥ ||115||  
taṇḍulīyo viṣaghnaśca rūkṣaḥ śītatara śuciḥ |  
madhuro rasapākābhyāṃ raktapittāpaghātakaḥ ||116||dha.ni.  
bhaṇḍīraṣṭaṇḍulībījo viṣaghnaścālpamāriṣaḥ ||10||  
taṇḍulīyo laghuḥ śīto rūkṣaḥ pittakaphāsrajit |  
srṣṭamūtramalo rucyo dīpano viṣahāraḥ | Bhavaprakasha.

### **Medicinal Uses of Bhandira:**

- The fresh juice of the leaves of Bhandira is applied over the wounds for quick healing.
- The paste of the leaves of Clerodendrum infortunatum is applied over the area having localized swelling to reduce it.
- The fresh juice of the leaf of the plant is given in a dose of 10 ml to treat liver disorders and remove intestinal worms.
- Cold infusion of the leaf is given in a dose of 30 ml to purify the blood in skin diseases.
- Fresh juice of the leaf is given in a dose of 10 to 115 ml to treat fever.
- The cold infusion of the leaf of Clerodendrum infortunatum is given in a dose of 30 ml to treat indigestion and improve the digestive capacity.

- The leaves of this plant are used as vermifuge and root rubbed down with butter milk is administered in colic pain.
- The fresh juice of the leaf acts as a laxative and is used to treat constipation.

### **Uses as per Ayurveda:**

Rechana - induces purgation

Krumighna - Relieves worm infestation, useful in infected wounds

Sara - induces mobility, causes diarrhea, purgation, relieves constipation

Vishaghna - anti toxic

Ruchya - improves taste, relieves anorexia.

### **Indication:**

Jwara - fever

Kushta - skin diseases

Amavata - rheumatoid arthritis

Madhumeha - diabetes

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

**Adverse effects:** No adverse effect of Bhandira is known or reported.

### **Formulations containing Bhandira:**

Rasnadi ghrita: Rasnadi ghritam is a herbal medicated ghee

formulation used for the treatment of rheumatoid arthritis and Vata related disorders associated with pain.

Agastya rasayana: It is an ayurvedic medicine in lehya form used for the treatment of respiratory diseases like cough, asthma, bronchitis and to strengthen the lungs.

Bala oil: It is a medicated oil used for the treatment of vata predominant diseases like joint pain, paralysis, facial palsy, sciatica etc

Vathapy capsule: It is a proprietary ayurvedic medicine in capsule form for the treatment of hemiplegia and paraplegia.

Bronkasav liquid: It is a proprietary ayurvedic medicine useful to treat asthma, cough and other respiratory diseases.

Infectex granules: It is a proprietary ayurvedic medicine in granule form and is used for the treatment of Leucorrhoea, Gonorrhoea, Dysmenorrhoea and other Genito - urinary infections.

## **Research articles related to Clerodendrum**

### **infortunatum:**

Anti - microbial potency: The present study was conducted to determine the antimicrobial activity of *C.infortunatum* (Verbenaceae) with two different solvents viz; ethanol and ethyl acetate against medically important pathogens such as six gram positive bacterial strains, nine gram negative bacterial strains and seven fungal strains. Most of the extracts of root,

leaf and stem of *C. infortunatum* are effective against both organisms; bacteria and fungi, especially leaf extract > root extract > stem extract.

**Wound healing action:** Validation of the ethno therapeutic claim of *Clerodendrum infortunatum* L. was investigated to evaluate its wound - healing potency in experimental rats. The chloroform and ethanol extract showed significant ( $P < 0.01$ ) results compared with the control. The presence of bioactive constituents, including flavonoids, is thought to promote the wound - healing process due to their antioxidant and antimicrobial activities.

**Hepato protective potential:** Hepatoprotective potential of methanolic extract of *Clerodendrum infortunatum* Linn. (MECI), which is widely used in Indian indigenous system of medicine, was studied against carbon tetrachloride induced hepatotoxicity in rats. The study was evaluated by assaying the serum biochemical parameters glutamate pyruvate transaminase (ALT), glutamate oxaloacetate transaminase (AST), alkaline phosphatase (ALP), bilirubin and total protein. The results of this study revealed that methanol extract of *C. infortunatum* has moderate hepato - protective activity. This effect may be due to the ability of the extract to inhibit lipid peroxidation and increase in the anti - oxidant enzymatic activity.

## **Systemic classification:**

Kingdom : Plantae

Phylum : Plantae

Class : Discotyledons

Subclass : Gamopetale

Order : Ver benaceae

Family : Ver benaceae

Genus : Cleroden drum

Species : Viscosum

Sub Kingdom : Phanerogamia

## **Controversies:**

- In Samhitas, the herb Bhandir" has not been mentioned; instead, he mentioned Tanduliyaka which belongs to different family (Amaranthaceae), according to some authors.
- Tanduliyaka has also been given synonyms Bhandi, Bhandira by "Bhavamisra".
- Bhandir the drug does not match with the Bhandi described by Charaka Sutra sthana.
- Bhandi of Susrutha cikitsa is identified as manjista.
- Dalhana identified Bhandi as Lady's fingure.
- Bapal vaidya considers clerodendron infortunatum Linn as one of the sources of Granthi parna.



## **80. Priyangu Callicarpa macrophylla: Uses, Research, Remedies**

Priyangu - Callicarpa macrophylla is an Ayurvedic coolant herb used for the treatment of headache, diarrhea mixed with blood (Ulcerative colitis), general debility, fever, pain in the joints, skin diseases etc.

Latin name - Callicarpa Macrophylla Vahl.

Family - Verbenaceae

### **Names in different languages:**

Hindi name : Phalini, Daya

English name : Beautyberry

Bengali name : Matara, Mathara

Gujarati name : Priyangu

Kannada name : Priyangu

Malayalam name : Gawhla, Nalal, Jativruksha

Marathi name : Garhala

Punjabi name : Priyang, Sumali

Tamil name : Ittauduga, Vettilai pattai, Seembakulthu



Telugu name : Kodauduga



**Sanskrit synonyms:**

Gandhaphali - The fruit has a strong odor

Phalini - The plant bears many fruits

Asthibandhana - Binds the bones together

Gochandana, Shyama, Pitatandula, Karamba, Priya, Durjara,

Kanta, Priyahva, Vanita, Lata, Shyama, Godantini,

Kanguni, Kangu,

Priyavalli, Vrutta, Govandani, Karambha, Varnabhedani,

Mahilahvaya, Vishvak Senangana Priya, Bhangura, Mangalya,

Shreyasi

**Morphology of Callicarpa macrophylla:**

Priyangu is a perennial shrub growing up to 2m height found in North eastern parts of India and at 3000 ft in Himalayan region. Branches have hairy like cotton structure. The leaves are 18 to 30cm long ovate as lanceolate, smooth from upper

surface and hairy from ventral surface. The flowers are small, pink appears in florescence, some are purple or pinkish purple in color. The fruits are fleshy white divided into 4 compartments, each having single seed, ripe fruits look spongy.

**Callicarpa macrophylla medicinal properties:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent), Madhura (Sweet)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Tridosha shamaka (Balances down all the three doshas)

**Part used** - Flower, Bark, Root

**Dosage -**

Powder - 3 to 5 g

Decoction - 30 to 40 ml



### **Callicarpa macrophylla Chemical constituents:**

Oil from root is aromatic and stomachic. Calliterpenone (3 - 0X0 - 13 $\beta$  - Karane - 16 $\alpha$  , A - diol) and its acetate are seen in seeds, leaves and aerial parts. Crategolic acid, 2 $\alpha$  - hydroxyursolic acid, ursolic acid,  $\beta$  - Sitosterol,  $\beta$  - D - glucoside, apigenin, luteolin, their 7 - 0 - glucuronides 3, 3' - 7 trime thoxy - 4', 5 - dihydroxy - flarone (CNF - 1) L(t) -  $\alpha$  - amino -  $\beta$  - (P - methoxyphenyl), Propronic acid, C22 - C24 fatty acids, ethyl ester of C23 fatty acid are obtained from leaves. A new diterpenoid - Isopropylidenocalliterpenone is isolated from essential oil of leaves along with calliterpenone and its monoacetate and characterized as 16 $\alpha$ , 17 - Iso propylideno - 3 - oxo - phyllocladane.

### **Medicinal Uses of Priyangu:**

- The berries are highly astringent but are made into wine and jelly.
- The paste of the bark is applied over forehead to treat headache.
- The powder of the bark of Priyangu is used for rubbing the gums to treat gingivitis and used in face pack to improve the complexion of the face.
- The powder of the bark is used as dusting powder to control the bleeding from wounds.
- The decoction of the bark of Callicarpa macrophylla is given in a dose of 30 - 40 ml to stop internal bleeding in cases of peptic ulcer, internal piles.
- The cold infusion of the bark or root of Callicarpa macrophylla is given in a dose of 50 ml to treat fever and burning sensation of the body.
- The dried powder of Priyangu (2 to 3 g) is given with milk to improve the strength of the body.
- The paste of the bark is applied externally to treat skin diseases.
- The cold infusion of the bark or root is given in a dose of 40 ml which acts as blood purifier.
- Oil processed with leaf or bark of Priyangu is applied over the joints having swelling and pain.

## **THERAPEUTIC USES:**

*Shitada* : *Priyangu + Musta+ Triphala* are made into paste applied over gums. - *Cha. Chi - 4/70*

*Parinama shula*: Vomitting is induced with leaf decoction of *Priyangu*. - *Cha. Su - 26*

*Jvara*: *Priyangu* is best for *Jvara*, which contains *Madhur rasa, Shita virya* - *Dha. Ni/Cha. Su - 26*

If bleeding does not stop, methods to stop it should be adopted, orifice of wound should be smeared with powder of *Priyangu, Yasti, Masha* etc. - *A. H. Su 27/48.*

Decreases *Pitta*. It comes under group Which mitigates *pitta*. - *A. H. Su 15/6*

It cures chronic diahorrea, heal fractures, good for *pitta*, healing ulcers - *A. H. Su - 15/37*

It helps in unification of broken parts, fractures of bones, makes body stout, and hard to digest. - *A. h. Su - 6/12*

*Priyangu* is *Shitala, tikta* cures delusion, burning sensation, fever, vomiting and dyserasia. - *Cha.chi.90*

It is also used in rheumatic pain, colic tumors, dysentery, loss of appetite, blood disorders, bleeding disorders, *Pittaprameha*, skin disorder, general debility and poison.

प्रियङ्गुर्भग्नसन्धानवातकृद् बृंहणी गुरुः ।

कृष्णा रक्ता च श्वेता च पीताश्चैव प्रियङ्गवः ॥

यथोतरं प्रधानाः स्युः रूक्षाः कफहराः स्मृताः ।

सितकङ्गुस्तु मुशठी रक्तकङ्गुस्तु शोधिका ॥कै. नि.

फलिनी शीतला तिका तुवरानिलपित्ताहा ॥

रक्तातियोगदौर्गन्ध्यस्वेददाहज्वरापहा ।

गुल्मतृड्विषमोहघ्नी तद्वद् गन्धप्रियङ्गुका ॥

तत्फलं मधुरं रूक्षं कषायं शीतलं गुरु ।

विबन्धाध्मानबलकृत् सङ्ग्राहि कफपित्तजित् ॥ कै.नि.

प्रियङ्गुः शीतला तिका मोहदाहविनाशिनी ।

ज्वरवान्तिहरा रक्तमुद्रिकं च प्रसादयेत् ॥ ध. नि.

प्रियङ्गुः शीतला तिका तुवरानिलपित्तहृत् ।

रक्तातिसारदौर्गन्ध्यस्वेददाहज्वरापहा ।

गुल्मतृड्विषमोहघ्नी तद्वद् गन्धप्रियङ्गुका ॥

तत्फलं मधुरं रूक्षं कषायं शीतलं गुरु ।

विबन्धाध्मानबलकृत्सङ्ग्राहि कफपित्तजित् ॥ भा.प्र

प्रियङ्गुः शीतला तिका दाहपित्तास्रदोषजित् ।

वान्तिभ्रान्तिज्वरहरा वक्त्रजाड्यविनाशनी ॥ रा.नि.

priyaṅgurbhagnasandhānavātakṛd bṛṃhaṇī guruḥ ।

kṛṣṇā raktā ca śvetā ca pītāścaiva priyaṅgavaḥ ॥

yathotaramṃ pradhānāḥ syuḥ rūkṣāḥ kaphaharāḥ smṛtāḥ |  
sitakaṅgustu muśaṭhī raktakaṅgustu śodhikā ||kai. ni.  
phalinī śītalā tiktā tuvarānilapittahā ||  
raktātiyogadaurgandhyasvedadāhajvarāpahā |  
gulmatṛḍviṣamohaghnī tadvad gandhapriyaṅgukā ||  
tatphalaṃ madhuraṃ rūkṣaṃ kaṣāyaṃ śītalaṃ guru |  
vibandhādhmānabalakṛt saṅgrāhi kaphapittajit || kai.ni.  
priyaṅguḥ śītalā tiktā mohadāhavināśinī |  
jvaravāntiharā raktamudriktaṃ ca prasādayet || Dhanvanati  
Nighantu

priyaṅguḥ śītalā tiktā tuvarānilapittahr̥t |  
raktātisāradaurgandhyasvedadāhajvarāpahā |  
gulmatṛḍviṣamohaghnī tadvad gandhapriyaṅgukā ||  
talphalaṃ madhuraṃ rūkṣaṃ kaṣāyaṃ śītalaṃ guru |  
vibandhādhmānabalakṛtsaṃgrāhi kaphapittajit ||  
Bhavaprakasha

priyaṅguḥ śītalā tiktā dāhapittāsradoṣajit |  
vāntibhrāntijvaraharā vaktrajāḍyavināśanī || rā.ni.

### **Uses as per Ayurveda:**

Bhagnasandhana Krut - useful in healing fractures

Brumhani - nourishing, nutritious

### **Indicated in -**

Daurgandhya - bad odor

Sweda - excess sweating

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Jwara - fever

Gulma - Tumors of the abdomen

Trushna - excessive thirst

Visha - Toxic conditions, poisoning

Moha - delusion

Vanti - vomiting

Bhranti - dizziness

**Fruit:**

Madhura - sweet

Rooksha - dry

Kashaya - astringent

Sheetala - coolant

Guru - heavy to digest

Vibandhakrut - causes constipation

Adhmanakrut - causes bloating

Balakrut - improves strength

Sangrahi - absorbent, useful in diarrhea, IBS

Kaphapitta jit - Balances Kapha and Pitta Dosha.

**Adverse effects:** No known adverse effect is reported or known after the use of Priyangu



## **Ayurvedic medicines containing Priyangu:**

**Devadarvarishta:** Devadarvarishta is an Ayurvedic medicine, traditionally used to treat skin diseases especially occurring due to complication of diabetes, difficulty in passing urine and digestive diseases.

**Ushirasava:** Ushirasava is a liquid Ayurveda medicine used in treating bleeding disorders, skin diseases, intestinal worms, inflammatory conditions and piles.

**Pippalyasava:** It is a liquid ayurvedic medicine used in treating cough, asthma, anemia, piles and irritable bowel syndrome.

**Amroid ointment:** This is a proprietary ayurvedic medicine useful to treat piles, bleeding per rectum and local inflammation around the anal opening.

## **Research articles on Callicarpa macrophylla:**

**Anti - bacterial activity:** In this study, researchers investigated the ex vivo antibacterial activity of C. macrophylla stem ethanolic (SEE) and aqueous extracts (SAE) against various gram positive and gram negative strains. SEE have fairly growth inhibitory activity against all the bacterial strains, but exceptionally SAE was inactive against all except Salmonella typhimurium.

**Wound healing action:** In this present study ethanolic polyherbal extract including that of C. macrophylla is screened for its phytochemical evaluated in wound healing activity in

Wister rats by excision wound model using povidone iodine as a reference standard. From the results it was found that Polyherbal ethanolic extract possess significant wound healing action when compared to control and equipotent wound healing activity when compared to standard povidine iodine.

### **Classical categorization:**

Charaka -

Mutravirajaniya - group of herbs that colour and cleanse urine

Purisha samgrahaniya - group of herbs that increase bulk of stools

Sushruta - Priyangvadi gana, Anjanadi gana

Astanga sangraha - Anjanadi gana

Bhavaprakash Nighantu - Karpooradi varga

Dhanwantari Nighantu - Chandanadi varga

Kaiyyadeva Nighantu - Dhanya varga, Oushadhi varga

Raja Nighantu - Chandanadi varga

### **Scientific classification**

Kingdom - Plantae

Sub kingdom - Phanero gamia

Division - Angio spermae

Class - Dicotyledons

Subclass - Gamopetalae

Family - Verbanaceae

Genus - Callicarpa

Species - Macrophylla

### **Literary review:**

The drug *Priyangu* is first mentioned in *Charaka samhita*, useful in *Raktapitta*.

In *Astanga sangraha*, mentioned as *Priyanguvadi gana*, *Anjanadi gana*.

In *Sushruta samhita*, mentioned under the same. It is Shitada, Kaphapittahara. It is useful in *Jvara*, *Daha*, *Trishna*, *Gulma*, etc.

By *Nighantus*:

1. *Dhanwantari Nighantu*, it pacifies *kapha* and *pittadosha*. Useful in burning sensation, headache, excessive perspiration, ulcers, rheumatoid arthritis.
2. *Bhavaprakasha Nighantu*: Includes *Raktatisara*, *Jvara*, *Daha*, *Gulma*, it is *Kapapittajit* and *Balakrita*.
3. *Madanpal Nighantu*, also describes as *Raktasangrahaniya gana*, *Pittanashini*, for *Vrishya* etc.
4. *Raja Nighantu*, also includes *gana's* as *Mutra - virajaniya*, *Purish sangrahaniya*.
5. In *Nighantu Ratnakar*, described the varieties as named *Gandhpriyangu*, it is *Shita* in nature, useful in *Keshya*, *Dahapitta*, *Raktaruja*, *Vatagulma*, *visha*, *meha*, *meda*, *malastambhakar* also *kaphanasha*.

Also considered as *Srotogamitva* and also *Adhmanakara*, it is *Guru* in nature, *Shita*, *Ruksha*.

### **Varieties:**

According to classical reference of *Bheda*:

Two types:

1. Dhanyapriyangu - *Setaria italica* is source of food grain.

Dhanya means grain. Hence, this is considered as Dhanya Priyangu (also called Aushadha priyangu).

2. Gandhapriyangu - *Prunus mahaleb*, *Algaia roxburghiana* mig, *Callicarpa tomentose* (L.) murray

### **Habitat:**

It is found in North - eastern parts of India and at 3000 ft in Himalayan region. Found in village shrubberies and gardens through out north - east India, west Bengal - abundant plant.

## **81. Pudina: Medicinal Uses, Remedies, Research, Side Effects**

Pudina - Mentha piperata is a plant which is used for the treatment of indigestion, pain in joints, diarrhea, cough, dysmenorrhea and fever.

Latin name - Mentha piperata Linn. Mentha spicata

Family - Labiate

### **Names in different languages:**

All the Indian languages like Hindi, Bengali, Kannada, Gujarathi, Malayalam, Tamil, Telugu etc use the name Pudina for the plant. In English the plant is known as Spearmint or Garden mint.

Arabic - Phujanaj

Bengali name - Pudina

Burmese name - Bhudina

Canada - Chetni - maruga

Hindi - Podina

Malayalam - Putina

Marathi name - Pudina



**Synonyms:**

Rochani - Improves the taste perception

Pahari - Grow in the cool climate of hills

Pudina, Putiha, Pudina, Podinaka, Phudino, Podina

**Morphology:**

*Mentha piperata* is a perennial herb growing in the hilly regions or in the cold climatic regions of India. The plant has a strong odor and grows to a height of 1 - 2 foot. The leaves are slimy, dark and have a strong odor. The flowers are purple in color. *Mentha spicata* is also used as a synonym for *Mentha*

piperata.



### **Pudina medicinal properties:**

Rasa (Taste) - Katu (Pungent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Vipaka - - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Leaf, oil extract

### **Dosage -**

Leaf juice - 5 to 10 ml

Cold infusion - 25 to 30 ml

Oil - 1 to 3 drops

### **Chemical constituents of Mentha piperata:**

The major constituents of the essential oil are: menthol,

menthone, pule - gone, menthofuran, 1,8 - cineole, menthyl acetate, isomenthone. The leaves contain flavonoid glycosides, eriocitrin, luteolin 7 - O - rutinoside, hesperi - din, isorhoifolin, diosmin, eriodictyol 7 - O - glucoside and narirutin, besides rosmarinic acid, azulenes, cholene, carotenes.

रोचनी वह्निजननी वक्त्रजाड्यनिशूदनी |

कफवातहरी बल्या चर्द्यर्होचकवारिणी॥ (Ayurveda Vijnana)

rocanī vahrijananī vaktrajāḍyaniśūdanī |

kaphavātaharī balyā cardyarhrocakavāriṇī|| (Ayurveda Vijnana)

### **Medicinal uses of mint leaves:**

- Pudina is used in many cuisines all over the world, to enhance the taste of the dish.
- The leaves of Mentha piperata is used as carmative and helps in digestion of the food.
- 1 - 3 drops of oil obtained after the processing from the plant is used with hot water to treat indigestion and relive colic pain.
- The paste of the leaf of Mentha piperata is applied over the joints to relive pain and localized inflammation.
- Cold infusion of the plant in a dose of 30 - 40 ml is used to relieve dysmenorrhea and fever.



- The fresh juice of the leaf of Pudina, in a dose of 5 to 10 ml is given with honey to relieve cough and sore throat.
- The paste of the leaf is applied over the skin to relieve itching sensation and wound associated with pus.
- The distillate of the leaf is extracted and used in a dose of 1 to 3 drops with hot water to treat indigestion and bloating of abdomen.
- Gargling is done by adding fresh juice of the leaf of Pudina with water to relieve bad odor from the mouth and treat inflammation of the gums.
- The paste of the leaf of Pudina is given with first morsel of food to treat intestinal worms.

**Adverse effect:**

Although it is used in many consumer products, mint may cause allergic reactions in some people, inducing symptoms such as abdominal cramps, diarrhea, headaches, heartburn, tingling or numbing around the mouth, anaphylaxis or contact dermatitis.

**Formulations containing Putiha:**

[Antharth oil and liniment:](#) It is a proprietary medicine useful to relieve joint pain, reduce morning sickness and localized inflammation after external application.

Appirich syrup: Appirich Syrup is a proprietary Ayurvedic medicine useful as an appetizer in children. It improves taste in food and makes the child to feel hunger and eat well.

Calcurossin syrup: It is a proprietary Ayurvedic medicine useful to treat urinary bladder calculi and kidney stones.

Capsin cream: It is a cream used for external application in treating joint pain, muscle spasm and arthritis.

Kofsil syrup: Kofsil Syrup is a non - sedative herbal cough syrup. It is used in the treatment of bronchial asthma, bronchitis, bronchospasm, allergic asthma and smoker's cough.

Acidowin tablet: It is a proprietary Ayurvedic medicine useful to treat hyperacidity, flatulence, reflux oesophagitis and motion sickness.

### **Research articles related to *Mentha piperata*:**

Anti - bacterial action: The antibacterial activity of peppermint oil and different extracts of *Mentha piperita* against some Gram - positive and Gram - negative bacterial strains was evaluated in the present research work by agar well diffusion method. The oil and extracts also exhibited significant antioxidant activity and the oil showed about half potency when compared to the standard BHT.

Anti - diabetic action: The present study was undertaken with an objective to observe effectiveness of oral administration of Peppermint juice in alloxan induced diabetic wistar rats. The

present experimental study provides further evidence that oral administration of Peppermint juice for 21 days produced a significant decrease ( $p < 0.0010$ ) in the blood glucose level of alloxan induced diabetic rats.

**Wound healing action:** The objective of this study was to evaluate the effects of topical *Mentha piperita* and *Cymbopogon citratus* oil on wound healing. Diabetic induced infected wound treatment with topical *Mentha piperita* ointment treatment and their another essential ointment in *Cymbopogon citratus* wound contraction studies a circular piece 08 mm<sup>2</sup> in area 20<sup>th</sup> days compared wound healing study on the wound contraction studies a circular piece 08mm<sup>2</sup> in area 18<sup>th</sup> days highly effective in *Mentha piperita* ointment.

**Anti - fungal action:** Essential oil of *Mentha piperita* was analyzed by GC and GC - MS and evaluated for *in vitro* antifungal activity against *Dreschlera spicifera*, *Fusarium oxysporum* f.sp. *ciceris* and *Macrophomina phaseolin*. The oil was found to be effective against these fungal pathogens under laboratory screening. The antifungal activities of the oil increased with an increase in the concentration.

**Anti - emetic action in chemotherapy:** This study is aimed at determining the efficacy of *Mentha spicata* (*M. spicata*) and *Mentha × piperita* (*M. × piperita*) in preventing chemotherapy - induced nausea and vomiting (CINV). The

treatment and placebo groups applied essential oils of *M. spicata*, *M. × piperita*, or a placebo, while the control group continued with their previous antiemetic regimen. There was a significant reduction in the intensity and number of emetic events in the first 24 h with *M. spicata* and *M. × piperita* in both treatment groups ( $p < 0.05$ ) when compared with the control and no adverse effects were reported. The cost of treatment was also reduced when essential oils were used.

### **Classical categorization:**

Bhavaprakash Nighantu - Anekaryanam varga

Nighantu Adarsha - Putikaranjadi varga

Dhanavantari Nighantu - Suvarnadi varga

### **Scientific classification**

Kingdom - Plantae

Phylum - Angiospermae

Class - Dicotyledons

Subclass - Asteridae

Family - Labiatae

Genus - Mentha

Species - Spicata

## **82. Jupha - Hyssop: Uses, Remedies, Research, Side Effects**

Jupha - *Hyssopus officinalis* is a plant used for the treatment of swelling, constipation, distention of the abdomen, intestinal worms, hepatomegaly, cough and rhinitis.

Latin name - *Hyssopus officinalis* Linn.

Family - *Laiatae*

### **Names in different languages:**

Hindi name - Jupha

English name - Hyssop

Malayalam name - Isop

Urdu name - Zufah

Chinese - Ngau sat chou

Dutch - Hysop

French - Hysope, Hese saesu

German - Eisop

Greek - Issopos

Hebrew - Esuv

Hindi - Jupha,

Iceland - Isopus

Italian - Issopo

Japanese - Hissopu

Korean - Harob

Norwegian - Hissopo

Russian - Issop

Spanish - Hisopo

Swedish - Isop



### **Morphology of Hyssopus officinalis:**

Jupha is a small plant spreading in the ground level and is found in the Himalayan belt. The stem is woody at the base, from which grow a number of straight branches. Its leaves are lanceolate, dark green in color, and from 2 to 2.5 cm (0.79 to 0.98 in) long. The leaves have small hair like structure and have a pleasant odor and bitter taste. The flowers are pinkish to purplish in color and have pleasant odor. They bloom from July to September. The fruit is brown in color and slightly

triangular in shape.



**Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Whole plant

**Dosage** - 3 to 6 g powder



### **Chemical constituents of Hyssopus officinalis:**

Hyssop contains terpenoids, including marrubiin; a volatile oil consisting mainly of camphor, pinocamphone and beta - pinene; flavonoids, glucosides, tannins and resin. Marrubiin is a strong expectorant. The plant also contains ursolic acid, an anti - inflammatory principle. The alcoholic extract of the aerial parts at flower - ing yields an active antioxidant com - pound, rosmanol - ethyl ether. Its activity is much greater than butylated hydroxyl toluene. Pinocamphone and isopinocamphone are toxic constituents of the essential oil.

जूफा तीक्ष्णा कटुतिक्ता वीर्योष्णा कफवातनुत् ।

शोथघ्नी लेखनी पित्तसारणी कृमिनाशिनी ॥ ( द्र.गु.)

jūphā tīkṣṇā kaṭutiktā vīryoṣṇā kaphavātanut |

śothaghnī lekhanī pittasāraṇī kṛmināśinī|| ( dravya guna Vijnana)





### **Uses of Jupha:**

- A tea made from the leaves is used in the treatment of flatulence, stomach aches, upper respiratory tract infections, and coughs in children.
- A poultice made from the herb is used to heal wounds.
- The paste of the leaf is applied over wound for healing.
- Cold infusion of the leaf is given in a dose of 40 ml to treat hepatomegaly and fever.
- The paste of the leaf is applied over the forehead to treat rhinitis and headache.
- Fresh juice of the leaf and flower is given in a dose of 10 ml to treat constipation and distention of abdomen.
- The decoction of the leaf is given in a dose of 25 ml to treat intestinal worms.

- The juice of the leaf is given with honey to treat cough and asthma.
- The essential oil is used in aromatherapy. This oil should not be used on people who are highly strung as it can cause epileptic symptoms. This oil should not be used internally expect under professional supervision.
- Externally used as a re - solvent particularly for ecchymosis of eye and eyelids. Oil is used to treat cold cough and lung complains.



**Adverse effect of Hyssop:** The essential oil of the plant in excess quantity can cause increased intestinal movement and diarrhea. Apart from the above features it can also cause epileptic attack in person susceptible to strong odor.

**Ayurvedic medicines containing Jupha:**

[Gojihwadi kashaya:](#) It is an Ayurvedic medicine in water

decoction form. It is used in the treatment of fever, cough, bronchitis, asthma etc.

P - KOF syrup: P - KOF Syrup is a proprietary Ayurvedic medicine indicated in Ayurvedic treatment of cold, cough and allergic conditions.

Diakof Linctus - Used for cough and cold in diabetic people, manufactured by Himalaya Herbal Healthcare.

### **Research articles related to *Hyssopus officinalis*:**

Anti - asthmatic action: It has been proved that Uygur herb *Hyssopus officinalis* L. could affect the levels of some cytokines (such as IL - 4, IL - 6, IL - 17, and IFN -  $\gamma$ ) in asthmatic mice. By detection of the expressions of MMP - 9 and TIMP - 1 and the morphological changes, the aim of this research is to reveal the mechanism of Uygur herb *Hyssopus officinalis* L. in the process of airway remodeling. It is suggested that Uygur herb *Hyssopus officinalis* L. could inhibit airway remodeling by correcting imbalance of MMP - 9/TIMP - 1 ratio.

Ulcer protective action: Ethanolic extract of *Hyssopus officinalis*(EEHO) at the dose of 100 and 125 mg/kg was administered to albino rats 1 hour before the administration of ethanol. Animals were then sacrificed and tissue homogenate was used for various biochemical parameters in order to explore the ulcero - protective and antioxidant potential of the plant. Administration of 1 ml of ethanol to

overnight fasted rats resulted in increased ulcer index, total acidity and decreased pH. The findings of the study indicate that pre - treatment with EEHO has a significant ulcero - protective and antioxidant activity in ethanol - induced ulcers.

### **Scientific classification**

Kingdom: Plantae

Order: Lamiales

Family: Lamiaceae

Subfamily: Nepetoideae

Tribe: Mentheae

Genus: Hyssopus

Species: H. officinalis

### **Gana - Traditional classification:**

Tulasyadi Varga - Adarsha Nigantu

### **83. Country borage (Parnayavani) Uses, Research, Remedies, Side Effects**

Parnayavani - *Plectranthus amboinicus* is a plant mentioned in Ayurveda for the treatment of cough, asthma, headache, indigestion, diarrhea and intestinal worms.

Latin name - *Coleus amboinicus* Lour. *Plectranthus amboinicus*

Family - Labiatae

#### **Names in different languages:**

Hindi name - Patta ajwayin, Amroda, Patherchur , pathercheer

English name - Country borage, Indian mint, Indian borage

Bengali name - Pathar choor, Paterchur, Amalkuchi

Gujarathi name - Ovapan

Kannada name - Dodda patre, Sambrani, Sambrani soppu

Malayalam name - Panikoorka

Marathi name - Pan ova

Tamil name - Karpooravalli, Kurpurvallai

Telugu name - Karuvacru, Suganda vallekam, Karpoorvalli

French name : *Coleus d'Afrique* , *Plectrianthus aromatique*

German name : Cubanischer oregano, Jamaican Thymian

Japanese name *Koreusu amboinikusu* , *Kuuban oregano*

Malay name : Daun kucing (Indonesia) , Daun

Kambing(Indonesia)

Russian name : *Plektrantus aromatrii*

Spanish name : Oregano

Vietnamese name: Tan day le

Mah : Pan - ova

Gujarathi name - Ovapana

Chinese name - Zuo Shou Xiang



**Synonyms:**

Chornika, Karpooravalli, Sugandhi, Parnika, Himasagar,  
Ashmari bheda

Parnayavani is a small plant growing to a height of 1 - 2 feet. The stem is fleshy but has less strength. The leaves are little oval, thick, fleshy and have hair like structure beneath with strong odor. The flowers are small, purple colored and are seen in the month of May - July. The plant is available and cultivated all over India in the temperate climate.

**Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in

nature), Teekshna (Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)



**Part used** - Leaf

**Dosage** - 5 to 10 ml of juice

### **Chemical constituents of Plectranthus amboinicus**

The aerial parts of the plant yield an essential oil (0.1%) which contains thymol (79.5%); whereas in leaves carvacrol and camphor are major constituents. Leaves also contain a large amount of oxalacetic acid, flavonoid, cirsimaritin and beta - sitosterol.

तीक्ष्णा पर्णयवान्युष्णा कटुतिक्ता रसे लघुः ।

दीपनी पाचनी रुच्या मलसंग्राहिणी परम् ॥

अग्निमान्द्ये यकृद्रोगे ग्रहण्यामुदरक्रिमौ।

विषूचिकायामश्मर्या मूत्रकृच्छ्रे च शस्यते॥ ( द्र.गु.वि)

tīkṣṇā parṇayavānyuṣṇā kaṭutiktā rase laghuḥ |

dīpanī pācanī rucyā malasamgrāhiṇī param ||

agnimāndye yakṛdroge grahaṇyāmudarakrimau|

viṣūcikāyāmaśmaryā mūtrakṛcchre ca śasyate|| ( dra.gu.vi)



### Uses of Indian borage:

- The juice from the crushed leaves of Parnayavani is given in a dose of 5 - 6 ml with honey to treat cough and rhinitis.
- The fresh juice of Coleus amboinicus is given in dose of 10 ml with hot water to treat intestinal worms.



- The juice of the plant is given with juice of ginger to improve appetite and treat indigestion.
- The paste and juice of the leaf is given internally to treat renal and urinary calculi.
- The juice of Parnayavani is given with decoction of Kutaja (*Holarrhena antidysentrica*) to treat diarrhea and irritable bowel syndrome.
- The paste of the leaf is applied over forehead to treat headache.
- Expressed juice of leaf is applied around the orbit to relieve the pain in conjunctivitis
- Juice is mixed with sugar is given to children in colic, in asthma, chronic cough, strangury, calculus, gonorrhoea, piles and dyspepsia
- Crushed leaves are used as local application to the head in headache and to relieve the pain and irritation caused by centipedes
- Expressed juice is applied around the orbit to relieve the pain in conjunctivitis
- The drug is also useful in cardiac disability, cough, breathlessness, hiccups, dysurea and urinary calculi
- Expressed juice of leaves are carminative and used in dyspepsia

- The drug is used in vatavyadhi(akshepaka, apatantraka).It is also considered as useful in hridroga
- This drug is diuretic herbal agent. Its leaves have a pleasant odour and pungent taste
- The drug is quite useful in disorders of digestive system,particularly gastrointestinal complaints.

### **Adverse effects of country borage:**

No adverse effect is known after the use of parnayavani. Some people suffer from burning sensation of the tongue and esophagus after the intake of juice of the leaf.

### **Ayurvedic medicines containing Coleus amboinicus**

Byekof syrup: Byekof Syrup is a proprietary Ayurvedic medicine useful to treat cough, asthma and other respiratory disorders.

Grahanimihira taila: Grahanimihira Taila is an Ayurvedic oil used in the treatment of diarrhea, fever, cough, etc. This oil is used both for external and internal administration.

### **Research articles related to Coleus amboinicus:**

Anti - microbial study: Ethanolic extract of Coleus amboinicus leaves were used for study of antimicrobial activity. The antimicrobial activity was evaluated against six bacterial strains with four different concentrations by detecting minimum inhibitory concentration and zone of inhibition. The highest antibacterial activity was observed in Salmonella typhi at a concentration of 1000µg/ml. The lowest antibacterial activity

was observed in *Staphylococcus aureus* at a concentration of 250µg/ml of ethanolic extract of *Coleus amboinicus* leaf extract.

**Anti - bacterial and Anti - fungal action:** The aim of this study was to evaluate anti - bacterial anti - fungal activity of six Lamiaceae family *coleus* plants based on their traditional uses (breast - milk stimulants) from two Asian countries. All leaf extracts showed activity at least against one strain of bacteria and the result shows that there were significant differences ( $p < 0.05$ ) between the activities on microorganism. The minimum inhibitory concentration of all leaves extracts ranged from 1.0 to 2.0 mg/ml in inhibiting the growth of *S. aureus*, *E. coli*, *P. aeruginosa* and *B. subtilis*. This study shows that the *coleus* plants leaves can be used as anti - bacterial anti - fungal agent apart from the breast - milk stimulation properties.

**Anti - oxidant and cytotoxic action:** The aetylacetate and ethanolic extracts of *Plectranthus amboinicus*, (Lour.) Spreng. Leaves were found to exhibit antioxidant activity with IC50 value 350.74 µg/mL and 281.26 µg/mL by DPPH method. The ethanolic and aetylacetate extracts showed a high antioxidant activity by  $\beta$  - Carotene - Linoleic Acid Method. N - hexane and aetylacetate extracts showed potent cytotoxic effect on MCF7 with IC50 63.644 µg/mL, 7.647 µg/mL respectively.

**Classical categorization:**

Priya Nighantu - karpooradi varga

**Scientific classification**

Kingdom: Plantae

Order: Lamiales

Family: Lamiaceae

Genus: *Plectranthus*

Species: *P. amboinicus*

## **84. Mushrooms: Uses, Remedies, Research, Side Effects**

Mushroom *Agaricus campestris* is mentioned in Ayurveda for the treatment of fatigue, low sperm count. improving the sperm count. It is a good source of proteins, Vitamin B, K, C and D.

Latin name - *Agaricus campestris* Linn.

Family - Agaricaceae

Synonyms: *Psalliota campestris*



### **Morphology of *Agaricus campestris*:**

Chatraka belong to fungus kingdom. It grows wildly all over India near water source or in place of good moisture content in the soil. It is also cultivated for its commercial use and used in many cuisines. Mushroom has a weak mid part and an umbrella shaped top - hence the name Chatraka. Mushrooms are available in many shape and colors like pink, brown, pale white,

white, black. Only some varieties are edible and some are poisonous.

**Agaricus campestris medicinal properties:**

Rasa (Taste) - Madhura (Sweet)

Guna (Qualities) - Laghu (Light) Snigdha (Contain moisture),  
Picchila (Slimy)

Vipaka - Madhura (Undergoes Sweet taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Vatapitta shamaka (reduces vitiated vata and pitta dosha),

Kaphavardaka ( increase kapha dosha)

**Part used** - Whole fungus

**Dosage** - According to the requirement



**Chemical**

**constituents of Agaricus campestris:**

A protein (2.75%) supplement and an excellent source of vitamins of B complex. Vitamins K, C and D are also present.

Though all the amino acids are reported to be present, the concentration of tryptophane is particularly low.

### **Uses of Chatraka:**

- Chatraka is mainly used like vegetable in cuisines all over the world.
- Chatraka is boiled and is consumed with ghee to improve the sperm count.
- Mushroom is cut into small pieces and boiled in milk. This boiled milk is consumed in conditions of emaciation of the body and to improve the physical strength.
- In conditions of hyperacidity, mushroom is taken along with ghee or sugar candy.
- Little quantity of chatraka is taken with sugar candy in treating dry cough.
- Mushroom is fried with ghee and consumed to improve the sexual vigor.

सर्वे संस्वेदजाः शीता दोषलाः पिच्छिलाश्च ते ।

गुरवश्छर्द्यतीसारज्वरक्षेष्मामयप्रदाः ॥१८॥

श्वेताशुभ्रस्थलीकाष्ठवंशगोव्रणसम्भवाः ।

नातिदोषकरास्ते स्युः शेषास्तेभ्यो विगर्हिताः ॥१९॥ भा.प्र

भूकन्दो मधुरो वृष्यो बल्यो रूक्षो हिमो गुरुः ।

दुर्जरो भेदनो मृत्स्नो रोचनोऽति त्रिदोषलः ॥१६११॥

क्षुद्रजं तुवरं पाके कटु तद्वत् पुरीषजम् ।

सर्पच्छत्रकवर्ज्यास्तु वह्नयोऽन्याश्छत्रजातयः ॥१६१२॥

गुर्व्यः पीनसकर्यस्तु सर्वदोषप्रकोपनाः ।

कफकृच्छीतवीर्यं तु सर्वदोषविवर्धनम् ॥१६१३॥

रसे पाके च मधुरं गुरुष्णं कृष्णछत्रकम् ।

श्वेतं गुरुं विपाके तु रक्तं स्यात् स्वल्पदोषकृत् ॥१६१४॥ कै.नि.

गुह्यबीजः सुगन्धश्च गुलालः पुंस्त्वविग्रहः ।

बधिरश्चातिगन्धश्च शृङ्गरोहः रसेन्दुकः ॥१२१॥

भूतृणं कटुतिक्तञ्च वातसन्तापनाशनम् ।

हन्ति भूतग्रहावेशान्विषदोषांश्च दारुणान् ॥१२२॥ रा.नि

sarve saṃsvedajāḥ śītā doṣalāḥ picchilāśca te ।

guravaśchardyatīsārajvaraśleṣmāmayapradāḥ ॥98॥

śvetāśubhrasthalīkāṣṭhavaṃśagovraṇasambhavāḥ ।

nātidoṣakarāste syuḥ śeṣāstebhyo vigarhitāḥ ॥99॥

Bhavaprakasha

bhūkando madhuro vṛṣyo balyo rūkṣo himo guruḥ ।

durjaro bhedano mṛtsno rocano'ti tridoṣalah ॥1611॥



kṣudrajaṃ tuvaraṃ pāke kaṭu tadvat purīṣajam |  
sarpacchatrakavarjyāstu vahvayonyāśchatrajātayaḥ ||1612||  
gurvyāḥ pīnasakartryastu sarvadoṣaprapakopānāḥ |  
kaphakṛcchītavīryaṃ tu sarvadoṣavivardhanam ||1613||  
rase pāke ca madhuraṃ gurūṣṇaṃ kṛṣṇachatrakam |  
śvetam gurum vipāke tu raktaṃ syāt svalpadoṣakṛt ||1614||  
kai.ni.

guhyabījaḥ sugandhaśca gulālaḥ puṃstvavigrahaḥ |  
badhiraścātigandhaśca śṛṅgarohaḥ rasendukaḥ ||121||  
bhūtrṇaṃ kaṭutiktañca vātasantāpanāśanam |  
hanti bhūtagrahāveśānviṣadoṣāṃśca dāruṇān ||122|| rā.ni

### **Description of mushrooms as per Ayurveda:**

White variety, clean, with the colour of bamboo, cow are good to eat. They do not increase Doshas, unlike other types of mushrooms.

Other mushrooms are heavy, can cause vomiting, diarrhea, fever and Kapha disorders.

Madhura - sweet

Vrushya - Aphrodisiac, improves sexual strength

Balya - improves strength and immunity

Rooksha - dry

Hima - coolant

Guru - heavy to digest

Durjara - heavy and hard to digest

Bhedana - may cause diarrhea

Tridoshala - can increase all three Doshas

The dwarf variety is astringent, Katu Vipaka (pungent taste conversion after digestion).

Black mushroom is sweet taste and Vipaka,

White mushroom is guru - heavy to digest

Red mushroom can increase Doshas by small extent

### **Adverse effects:**

Some varieties of mushroom are poisonous and cause loss of sensation, diarrhea, nausea, vomiting, allergic rashes over the body, swollen lips, cramps of the muscles etc. Hence care should be taken to select the proper variety of mushroom.



### **Research articles related to Agaricus campestris:**

[Anti - oxidant potential:](#) The chemical, bioactive, and

antioxidant potential of twenty wild culinary mushroom species being consumed by the people of northern Himalayan regions has been evaluated for the first time in the present study. Although differences were observed in the net values of individual species all the species were found to be rich in protein and carbohydrates and low in fat. Glucose was found to be the major monosaccharide. Predominance of UFA (65 - 70%) over SFA (30 - 35%) was observed in all the species with considerable amounts of other bioactive compounds. All the species showed higher effectiveness for antioxidant capacities.

**Anti - bacterial study:** Antibacterial activity of methanolic and acetone extracts of *Agaricus bisporus* were determined in - vitro against two pathogenic bacteria *Escherichia coli* and *Staphylococcus aureus* following agar well diffusion method using different concentrations (25, 50, 75 and 100%).

Methanolic and acetone extracts showed potent antibacterial activity against tested bacteria. Methanolic extract showed maximum inhibitory effect against growth of each of the test bacterium.



### **Classical categorization:**

Charaka Samhita - Shaka varga

Bhela Samhita - Shaka varg

Bhavaprakasha Nighantu - Shaka varga, Samsvedaja Shaka

Adarsha Nighantu - Bhuchhatrakadi varga

Kaiyyadeva Nighantu - Aushada varga

Madana Pala Nighantu - Shaka varga

Dravya Guna Vijnaana - Samsvedaja Shaka varga

Raja Nighantu - Shalmalyadi Varga

### **Scientific classification**

Kingdom: Fungi

Division: Basidiomycota

Class: Agaricomycetes

Order: Agaricales

Family: Agaricaceae

Genus: Agaricus

Species: A. campestris

**Synonym:**

Bhumi sphota, Prithvi sphota - Emerges from the earth

Shilindra - Emerges from the stones

Kutumbaka - appears in bunches

Bhumi chatra, Bhu Chatra - Umbrella shaped structure  
emerging from earth

Sarpa Chatra, Bhumi kanda, Malatrana, Sumali, Bhukanda,  
Prithvi kanda, Rohisha,

**Reference of Mushroom in Ayurveda:**

Bhela Samhitha Sutrasthana 28<sup>th</sup> chapter under shaka varga 24 - 26<sup>th</sup> shloka. Here he has mentioned about different types like palala jata Chhatraka , venu Chhatraka, gomaya chhatraka and their respective gunas also mentioned.

In Bhela Samhitha chikitsa sthana 2<sup>nd</sup> chapter 35<sup>th</sup> shloka. In jwara chikitsa, *chhatraka* is mentioned in a formulation called Mahapaishashika ghrata where it is an ingredient.

**Types of mushrooms as per Ayurveda:**

According to Bhela samhitha:

- Palala jatha chhatraka
- Gomaya chhatraka
- Venu chhatraka

According to Kaiyyadeva nighantu:

- Krishna chhatraka
- Sarpa chhatraka
- Shwetha chhatraka
- Raktha chhatraka

Some other references: White, Red, Black

Savisha chhatraka - poisonous

Nirvisha chhatraka - non poisonous

**Names in different languages:**

Hindi name - Khumi, Gucchi, Chhata, Chhatona, Phenchhatar, Sanpakichhatri

English name - Mushroom

Arabic name - Fitar

Assamese name - Kalphula

Bengali name - Chhata, Chhatakuda, Bhuchhati

Gujarathi name - Viladino Topp, Kagdanachhatra, Mindadnivali

Marathi name - Alambi, Alombe, Kalambe, Khumba

Kannada name - Anabe

Tamil name - Naikkodai

Telugu name - Kukkgodugu

Catalan name - Bolet decam, Bolet comu

Chamba name - Moksha, Mopsha

French name - Psalliotte champetre

German name - Brachpitz, Champigon

Hausa - Namanangulu, Namankassa

Kashmir name - Manskhel

Konkani name - Kamila

Persian name - Chatrimar

Portuguese name - Cogumelo

Punjabi name - Bleophore

Spanish name - Agarico camperino

Tulu - Lambu, Kallambu

## **85. Isabgol: Psyllium Husk: Uses, Remedies, Research, Side Effects**

Ashwagola - Plantago ovata, more commonly known as Isabgol, is an Ayurvedic herb used for the treatment of constipation, distention of abdomen, herpes, piles.

Latin name - Plantago ovata Forsk.

Family - Plantaginaceae

### **Psyllium husk Names in different languages:**

Hindi name - Isabgol, Ashwagol

English name - Spogel seeds, Psyllium, Isphagul

Arabic name - Bajkathuna

Gujarathi name - Umatho jeeru

Kannada name - Isapgol

Tamil name - Isappa

Telugu name - Isapgol





### **Sanskrit Synonym of Aswagol:**

Ashwakarna - Seeds resemble ear of horse

Ishadgol - Seeds are little round

Sheetabeeja, Ashwagol

### **Morphology of Plantago ovata:**

Aswagol is a small bushy shrub growing to a height of 2 - 3 feet all over India. It is cultivated in some parts of North West India like Rajasthan and Punjab. The leaves are 4 - 8 inch long. The flower stalk is oval shaped. The fruits are little oval in shape and are about 7 - 8 mm long. The seeds inside the fruits are of ear shaped and white in color. The seeds are mucilaginous in nature.



### **Isabgol medicinal properties:**

Rasa (Taste) - Madhura (Sweet)

Guna (Qualities) - Snigdha (Has moisture), Guru (Heavy),

Picchila (Slimy)

Vipaka - Madhura (Undergoes sweet taste after digestion)

Veerya (Potency) - Sheeta (Madhura)

Karma (Actions) - Vata pitta shamaka (reduces vitiated vata and pitta dosha) Some others opine that it balances down Kapha and Pitta Dosha.

**Part used** - Seeds, Husk of seed

**Dosage** - 5 to 10 g



### **Chemical constituents of Plantago ovata:**

The seed contains amino acids including valine, alanine, glutamic acid, glycine, cystine, lysine, leucine and tyrosine; and a mucilage consisting of a mixture of polysaccharides composed mainly of xylose, arabinose and galacturonic acid; rhamnose and galactose are also present. The seeds also gave aucubin, the antibacterial principle. The seed coat contains fatty acids mainly linoleic, oleic and palmitic acids in decreasing concentrations.

ईषद् गोलं परं वृष्यं मधुरं ग्राहि शीतलम् ।

पिच्छिलं तुवरं किञ्चित् वातकृत् कफपित्तहत्॥

रक्ततिसारास्रपित्तं नाशयेदिति कीर्तितम् ॥ (vaidyāmṛtam)

īṣad golaṃ paraṃ vṛṣyaṃ madhuraṃ grāhi śītaḥ |

picchilaṃ tuvaraṃ kiñcit vātakṛt kaphapittahat||

raktātisārāsrappittaṃ nāśayediti kīrtitam || ( vaidyāmṛtam )



### Uses of Ashwagol:

- The seed husk of Ashwagol is soaked in water for a couple of hours and later it is consumed to treat distention of abdomen, constipation and flatulence.

- The seed of Isabgol is made into powder and the powder is consumed in a dose of 3 to 5 g to treat burning sensation, excessive thirst in the body and fever.
- The seeds are fried in ghee and consumed to treat Irritable bowel syndrome.
- Seeds of Isabgol are made into paste and applied externally in cases of Herpes, Localized swelling with burning sensation, area affected with pustules.
- Cold infusion of the seeds of Isabgol is consumed in a dose of 30 - 40 ml to treat retention of urine.

**Adverse effects:** Excess use of the seeds or husk of Isabgol may cause severe purgation, leading to dehydration.



### **Ayurvedic medicines containing Psyllium husk:**

[Constiwin capsule:](#) It is a proprietary Ayurvedic medicine. It is a laxative used to treat constipation, piles, flatulence and fistula in ano.

Laxoherb powder: It is a proprietary Ayurvedic medicine. It is used to treat hyperacidity, piles, fissures, indigestion, flatulence and heart burn.

Golax powder: It is a proprietary Ayurvedic medicine. It is used in the treatment of constipation, incomplete bowel evacuation, hemorrhoids, Irritable bowel syndrome and diverticulitis.

Laxogold capsule: It is a proprietary Ayurvedic medicine useful to treat constipation.

### **Research articles related to *Plantago ovata*:**

Anti - tumor action: *Plantago major* (seeds and leaves) and *Cyamopsis tetragonoloba* (guar beans) were analyzed for general chemical components including, fatty acids and amino acids. *Plantago* leaves extracts exhibited higher antioxidant activity than *plantago* seeds and guar beans extracts. The ethanolic, hot and cold extracts of plant induced anticancer activity with various degrees. Ethanolic extract of *P. major* leaves possessed the greatest effect on tumor cell growth (Dead 74%) followed by hot water extract of *P. major* leaves (Dead 54.6%).

Protection of Intestinal mucosa: To evaluate the anti-ulcerogenic effect on duodenal mucosa of the soluble fiber *Plantago ovata* husk, low-dose acetylsalicylic acid (10 mg/kg) was given orally to animals once daily for 14 or 28 days with and without *Plantago ovata* husk (100 mg/kg).

24 h after final dosing duodenal samples were removed for anatomopathological evaluation. Villi were examined by both light and scanning electron microscopy. Findings suggest that *Plantago ovata* husk may protect intestinal mucosa probably by limiting acetylsalicylic acid penetration into epithelial cells, although further studies are needed to confirm the same effect in other experimental models of induced mucosal damage and to elucidate the mechanisms of fiber protection.

### **Scientific classification of Isabgula**

Kingdom: Plantae

Order: Lamiales

Family: Plantaginaceae

Genus: *Plantago*

Species: *P. ovata*

## **86. Gorakshaganja Aerva lanata Uses, Adverse effects, Research**

Gorakshaganja - Aerva lanata is a plant mentioned in Ayurveda for the treatment of renal calculi, retention of urine, cough and sore throat. The plant has promise on anti HIV activity.

Latin name - Aerva lanata Juss.

Family - Amaranthaceae

### **Names in different languages:**

Hindi name: Gorakhbuti or Kapuri jadi, Gorakshaganja, Gorkhabundi, Kapurijidi, chaya.

English name: Mountain knot grass

Bengali name: Chaya

Kannada name: Bilesuli, Bilihindi soppu

Malayalam name: Cherula, Cerula, Ceruvuta

Marathi name: Kapuri - madhura, Kapurmadhura, Kumrapindi , Kapurphuti

Punjabi name: Bui - kaltan (flowers as sold in bazaars)

Tamil name: Sirru - pulay - vayr, Cerupulai, Poolai

Telugu name: Pindi - kura, Pindi - chettu, Pindiuttu, Kondapindichettu

Gujarathi name - Bur, Kapurimadhuri

Assamese name - Bameha

Spanish name - Sanguinaria de cuba

Deccan name - Khul - Khul

Mundari - Cauliara

Sind - Bui

Trans - Indus - Azmei

Punjab - Baikallau



**Sanskrit Synonym:**

Pashanabheda - That which destroys the stones

**Morphology of Aerva lanata**

*Aerva lanata* is a common weed which grows wild everywhere in the plains of India. The root has a camphor - like aroma. The flowers are seen as clusters and are pale green in color. The dried flowers which look like soft spikes, are sold under the commercial names as Buikallan or Boor. The fruits and flowers



are seen in the month of November to January. This herb is taken as a variety of Pashanabheda in South India.



### **Medicinal Properties of Gorakshaganja:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Teekshna (Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Prabhava (Special action) - Ashmari bhedana (Destroys the stones)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Root

**Dosage** - 50 to 100 ml of decoction

**Habitat:**

Goraksha ganja (Aerva lanata) grows throughout India in the plains upto 1000mts on the hills, Ceylon, Arabia, tropical Africa, Java, Philippines.

**Chemical composition of Aerva lanata:**

The plant contains palmitic acid, beta - sitosterol and alpha - amyryn. The flowering and fruiting parts contained hemicellulose, starch an acid - soluble polysaccharide & H<sub>2</sub>O soluble polysaccharides, monosaccharide contents of polysaccharides determined.

गोरक्षगञ्जा तुरा सतिता, लघ्वी च तीक्ष्णा परमोष्णवीर्या।

कफार्ति मूत्रविरेचनीया, प्रभावतोऽप्यश्मरिनाशनी स्यात् ॥ ( द्र. गु. वि)

gorakṣagañjā turā satittā, laghvī ca tīkṣṇā paramoṣṇavīryā|

kaphārtti mūtravirecanīyā, prabhāvato'pyaśmarināśanī syāt || ( dra. gu. vi)



### **Uses of Gorakshaganja:**

- The decoction of the root of Aerva lanata is given in a dose of 50 - 60 ml to treat renal calculi and retention of urine.
- Cold infusion of the whole plant is given in a dose of 30 - 40 ml to treat cough and sore throat.
- The dried leaf and flowers of Gorakshaganja are burnt and the smoke coming from it is used for inhalation to treat asthma and chronic cough.
- The paste of the plant is applied over forehead to treat headache.
- The paste of the root is made into decoction and given in a dose of 30 ml to treat gonorrhoea.

- The cold infusion of the root of Aerva lanata is given to pregnant women as tonic to improve the body strength.

### **Pharmacological actions**

Anthelmintic - useful in intestinal worm infestation  
demulcent & lithiasis.

useful in cough, sore throat, indigestion, wounds & as specific for diabetes.

Decoction is efficacious diuretic & is useful in catarrh of bladders. It is said to cure diarrhea, cholera & dysentery.

Flowers are lithotryptic.

**Adverse effects:** No adverse effects are reported after the normal use of this herb.

### **Ayurvedic medicines containing Gorakshaganja:**

Marma gulika: Marma Gulika is a tablet, used in Ayurvedic treatment of diseases of Marma places - vital organs, means, diseases related to heart, brain, urinary system etc. It is also used to treat external injury to vital organs of the body.

Ureaze tablet: It is a proprietary Ayurvedic medicine useful in the treatment of urinary tract infection and also acts like a diuretic.

Virataradi kashaya: It is a decoction used in the treatment of renal calculi, retention of urine and vata predominant diseases.

### **Research articles related to Aerva lanata:**

Anti - microbial study: The antioxidant potential of Aerva lanata

was investigated in this study. The plant exhibited the most potent radical scavenging activity at a maximum concentration 2.5mg/ml. Natural antioxidants such as Flavonoid, Total phenols, Tannin, Carotenoids and Lycopene were evaluated and also the antioxidant activity against DPPH, Super oxide anion, Hydroxyl radical, Nitric oxide radical, Hydrogen peroxide radical, Total antioxidant capacity assay and anti - lipid peroxidation activity were evaluated. Aerva lanata showed high anti lipid peroxidation against TBA. Strong antioxidant activity showed in aqueous ethanol extracts than water and ethanol extracts, and similar to standards ascorbic acid and BHT.

**Anti - HIV activity:** The aim of the present study was to evaluate the anti - HIV activity and cytotoxic effects of Aerva lanata root extracts. All extracts exhibited the most notable activity and the chloroform extract of Aerva lanata showing highest (91.0%) HIV - RT inhibition at 2mg/ml concentration, hexane, ethyl acetate and acetone extractions showed highest inhibition of HIV - RT at 2 mg/ml concentration (86.9, 85.2 and 77.5 respectively). While control drug (AZT) showing 91.7% at 2mg/ml concentration. IC50 value of all extracts determined below 40mg/ml.

**Anti - urolithiatic activity:** . In this study aqueous, chloroform, benzene extracts of Aerva lanata (L.) and standard for dissolving kidney stones - calcium oxalate by an in - vitro

model. To check their potential to dissolve experimentally prepared kidney stones - calcium oxalate by an in - vitro model for Aerva lanata (L.) and cystone as a standard compound collected from market. Phenolic compound isolated from the benzene and aqueous, flavanoids and steroids from aqueous fraction of the leaf. Aqueous fractions showed highest dissolution of stones as compare to others.

Anti - diabetic action: This study was undertaken to evaluate the effect of an alcoholic extract of A. lanata (AAL) on blood glucose and other biochemical parameters in alloxan - induced diabetic rats. AAL was found to reduce the increase of blood sugar in alloxan - induced diabetic rats (42% at 375 mg/kg and 48% at 500 mg/kg body weight). Chronic administration of AAL significantly ( $P < 0.001$ ) reduced the blood sugar of alloxan induced diabetic rats for 2 weeks. Also the extract prevented a decrease in body weight and reduced the increased lipid peroxides in alloxan induced diabetic rats.

### **Scientific classification**

Kingdom: Plantae

Order: Caryophyllales

Family: Amaranthaceae

Subfamily: Amaranthoideae

Genus: Aerva

Species: A. lanata

## **87. Chukra Rumex vesicarius Uses, Medicines, Remedies, Research**

Chukra - Rumex vesicarius is an Ayurvedic herb used for the treatment of constipation, diseases of the liver, scorpion bite, snake bite, piles and vomiting.

Latin name - Rumex vesicarius Linn.

Family - Polygonaceae

### **Names in different languages:**

English name - Bladder dock, Sorrel, Bubble dock, Rosy Dock,

Hindi name - Ambari, Chuka, Chukekasak

Kannada name - Chukka

Arabic name - Hamaz, Humarbostani, Humbijit

Assamese name - Sukhasag

Bengali name - Chak, Chuk, Chukapalang

Bombay - Chuka

Burmese name - Kalakhenbour

Deccan name - Ambari, Chukka

Malayalam name - Chokkancheera

Persian name - Tursak, Turshah, Turshunuk

Punjabi name - Kattamitha, Khatbiri, Saluni

Tamil name - Chukka

Telugu name - Chukka kura



**Synonyms:**

Amla, Amlabhedaka, Sinchamla, Shuktika, Sahasravedhi, Amlantaki, Rajamla, Rasamla, Vetamla, Viramla - All these names indicate the sour nature of the plant  
Bhedana, Gulmaha, Beeta, Shukta, Chanda,

**Morphology of Rumex vesicarius:**

Chukra is a plant growing to a height of 15 - 3 cm. It is found in most parts of India in a state of cultivation or as a garden escape. It occurs in western Punjab, salt range and Trans - Indus hills. It grows especially in hilly areas and Himalayan



zone.



**Medicinal properties of Bladder dock:**

Rasa (Taste) - Amla (Sour), Madhura (Sweet)

Guna (Qualities) - Laghu (Light for digestion)

Vipaka - Amla (Undergoes sour taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Vata shamaka (reduces vata dosha), Kapha pitta vardaka (Increases kapha and pitta dosha)

**Part used** - Whole plant, Seed

**Dosage -**

Fresh juice - 10 to 20 ml

Powder - 2 to 3 g



### **Chemical composition:**

Fresh and green herb contains 92% water content dried plant contain either extract 4.62%, albuminoid 16.27%, carbohydrate 57.86%, woody part 10.50% and alkaline 10.75%. Root contains Rumicin and lapathin. It also contains an anthraquinone glucoside, aminoacids, vitamins, cystine, glutamic acid, histidine etc.

### **Uses of Chukra:**

- The paste of the leaf of *Rumex vesicarius* is kept in the gums and tooth affected with dental caries to relive pain and inflammation.
- The paste of the leaf of Chukra is applied over the area affected with scorpion bite to relive pain and inflammation.

- The seeds of Rumex vesicarius is roasted and powdered and is taken internally to treat scorpion bite and diarrhea.
- The decoction of the plant is given in a dose of 30 ml with supernatant layer of curd and juice of pomegranate to treat diarrhea.
- The juice of the leaves of Chukra is slightly warmed and installed into the ears to treat earache.
- The decoction of the whole plant is given in a dose of 50 ml to treat hepatomegaly and piles.
- Fresh juice of the leaf of Chukra is given in a dose of 10 ml to treat vomiting.
- Rice gruel boiled with Chukra and nagakesara (Mesua ferrea) is given to treat bleeding piles and diarrhea associated with blood.

अम्लिकायाः फलं चाम्लमत्यन्तं पित्तकृल्लघु ।

रक्तकृद्वातशमनं बस्तिशुद्धिकरं परम् ॥

पक्वं तु मधुराम्लं च भेदि विष्टम्भि वातजित् ।

त्वक्भस्म स्यात्कषायोष्णं कफघ्नं त्वनिलापहम् ॥ ध.नि.

चुक्रमत्यम्लमुष्णञ्च दीपनं पाचनं परम् ।

शूलगुल्मविबन्धामवातश्लेष्महरं सरम् ।

वमितृष्णाऽऽस्यवैरस्यहृत्पीडावह्निमान्द्यहृत् ॥ भा.प्र

चुक्रात्वम्लतरा स्वद्वी वातघ्नी कफपित्तकृत् ।

रुचा लघुतरा पाके वृन्ताकेनातिरिचनी ॥ भा.प्र

amlikāyāḥ phalaṃ cāmlamatyantam pittaḥllaghu |  
raktakṛdvātaśamanam bastiśuddhikaram param ||  
pakvam tu madhurāmlam ca bhedi viṣṭambhi vātajit |  
tvakbhasma syātkaṣāyoṣṇam kaphaghnam tvanilāpaham ||  
dha.ni.

cukramatyamlamuṣṇaṅca dīpanam pācanam param |  
śūlagulmavibandhāmavātaśleṣmaharam saram |  
vamiṭṛṣṇā"syavairasyahrtpīḍāvahnimāndyahṛt || Bhavaprakasha  
cukrātvamlatarā svadvī vātaghnī kaphapittakṛt |  
rucā laghutarā pāke vṛntākenātiricanī || Bhavaprakasha

### **Uses of Chukra as per Ayurveda:**

Pittakrut - Increases Pitta Dosha

Rakrakrut - can increase bleeding disorders

Vatashamana - Balances Vata Dosha

Bastishuddhikara - cleanses and detoxifies kidneys and bladder

Deepana - improves digestion strength

Pachana - Digestive, relieves Ama Dosha

Sara - induces mobility, causes diarrhea, purgation, relieves constipation

**Indicated in -**

Shoola - abdominal colic pain

Gulma - Tumors of the abdomen

Vibandha - constipation

Amavata - rheumatoid arthritis

Vami - vomiting

Trushna - excessive thirst

Asyavairasya - bad breath

Hrutpeeda - Cardiac pain

Vahnimandya - low digestion strength

**Pharmacological action:**

Laxative, stomachic. It is useful in tumours, constipation, alcoholism, diseases of spleen, hiccough, flatulence, asthma, bronchitis, dyspepsia, vomiting & piles.

**Adverse effects:** There are no known adverse effects of the herb Chukra

It is best to avoid this in high Pitta disorders such as diseases associated with excess bleeding.

Because it acts as laxative, it is not suitable for people with

diarrhea.



### **Ayurvedic medicines containing Chukra:**

[Marma gulika](#): Marma Gulika is a tablet, used in Ayurvedic treatment of diseases of Marma places - vital organs, means, diseases related to heart, brain, urinary system etc. It is also used to treat external injury to vital organs of the body.

### **Research articles related to Rumex vesicarius:**

[Hepato protective action](#): To evaluate the hepatoprotective potential and in vitro cytotoxicity studies of whole plant methanol extract of *Rumex vesicarius* L. Methanol extract at a dose of 100 mg/kg bw and 200 mg/kg bw were assessed for its hepato - protective potential against CCl<sub>4</sub> - induced hepatotoxicity by monitoring activity levels of SGOT (Serum glutamic oxaloacetic transaminase), SGPT (Serum glutamic pyruvic transaminase), ALP (Alkaline phosphatase), TP (Total protein), TB (Total bilirubin) and SOD (Superoxide dismutase),

CAT (Catalase), MDA (Malondialdehyde). Pretreatment of animals with whole plant methanol extracts of *Rumex vesicarius* L. significantly reduced the liver damage and the symptoms of liver injury by restoration of architecture of liver. The biochemical parameters in serum also improved in treated groups compared to the control and standard (silymarin) groups. Histo pathological investigation further corroborated these biochemical observations.

### Anti - bacterial

action:The main aim of this research work is to evaluate antibacterial and antioxidant activities of different plant parts of *Rumex vesicarius* L.

The pattern of inhibition, activity index and proportion index showed highly significant variations according to variations of solvents used for extraction. Ether extract of roots was found to be the most effective against *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, *Staphylococcus aureus* and *Streptococcus*

*pyogenes* (inhibition zones=26.500, 22.000, 41.5000 and 21.500 mm respectively), methanol extract of roots was found to be the most effective against *Streptococcus pneumoniae* (inhibition zone =18.000 mm) and ethanol extract of flowers was found to be most effective one against *Escherichia coli* (inhibition zone =15.875 mm).

The main objective of this work is to evaluate the in vivo anti diabetic activity of ethanolic extract of *Rumex vesicarius* in the streptozotocin induced diabetic rats. Single intraperitoneal injection (i.p.) of streptozotocin (60 mg/kg body weight) was used for induction of diabetes in albino rats. The statistical data indicated that the different dose of *Rumex vesicarius* significantly decreases the level of blood glucose in streptozotocin induced rats. This result indicated that *Rumex vesicarius* can protect pancreatic  $\beta$  cells from streptozotocin induced damage which is confirmed by the results of histo pathological examination of pancreas.

**Anti - cancer action:** The goal of the current study was to explore the potent role of *Rumex vesicarius* extract against Hepato Cellular Carcinoma (HCC) induced in rats. The results of the current study showed that the treatment of the HCC group with *R. vesicarius* extract reversed the significant increase in liver enzymes activity, CEA, AFP, AFU, glypican 3, golgi 73 and VEGF levels in serum as compared to HCC - untreated counterparts. In addition, the favorable impact of *R. vesicarius* treatment was evidenced by the marked improvement in the histo pathological features of the liver of the treated group.

**Classical categorization:**

Bhavaprakasha Nighantu - Shakha varga & Hareethakyadi varga



Priya Nighantu - Hareethakyadi varga  
Nighantu Adarsha - Chukrikadi varga  
Kaiyadeva Nighantu - Aushadha varga  
Dhanvantari Nighantu - Amradi Varga

### **Scientific classification**

Kingdom: Plantae

Order: Caryophyllales

Family: Polygonaceae

Genus: Rumex L.

### **Textual reference:**

Susruta quoted chukra, but not cukrika and chukrika. In caraka samhita chikitsa 24/150 [ C.S.Ci 24/ 150] and A.H. Ci. 7/31 both cukrika and chukrika are mentioned together. They may be Rumex vesicarius linn and R.acetosella linn respectively.

## **88. Rhubarb - Rheum emodi Uses, Research, Medicines**

Pita mula - Rheum emodi is an ayurvedic herb mentioned for the treatment of low digestion, constipation, dysmenorrhea, jaundice etc. It is also known as Rhubarb or Revand chini.

Latin name - Rhum emodi Wall.

Family - Polygonaceae

### **Names in different languages:**

English name: Indian rhubarb or Himalayan rhubarb

Hindi name: Dolu, Revandchini.

Afghanistani name - chukri, Rawash

Arabic name - Revanch chini, Rawind

Bengali name - Revandchini

Bombay name - Ladakirevand chini

Canarese name - Naturevalchini

Deccan name - Nahirevandchina

French name : Hubarb de parse

Gujarathi name: Revandchini, Gamni,

Gujarathi :revandchini.

Himachal Pradesh : Ladu, chuchi.

Kamaun: Archu

Kannada name: Revalchini

Ladak : Lachu

Marathi name : Mulkarcvand chini, Revanchini.

Nepalese name: Padamachal

Persian name : Bikrewas, Revandchini.

Punjab : Atsu , Chotial, Chuchi, Pambash, Chutial, Khabium,  
Lachu, Rewand chini.

Spiti : Lachu.

Tamil name : Variyattu, Natturevandchini

Telugu : Nattupampuch, Nattureval chini

Urdu : Rewand chini

### **Sanskrit synonyms:**

Amlaparni - The leaves are sour in taste

Pitamulika - The roots are yellow in color

Grandhika, Gandhini - The plant has a dominant odor

Swedachini, Revadhika, Hrithdhatri, Kankushta

### **Morphology of Rheum emodi:**

Rhubarb is a stout herb 1.5 - 3.0 m in height, distributed in the Himalayas from Kashmir to Sikkim at altitude of 3,300 m to 5,200 m. It is also cultivated in Assam for its leaves consumed as vegetable. The stem is hard, green with brownish streaks. The flowers are 2 - 3 foot long and purple to reddish colored seen in the month of July to August. The fruits are about 1 - 2 cm long, purple colored and seen in the month of September to October. The root of the plant is thick, strong and yellow in color. The roots are dried and sold. There are three main types of rhubarbs—Chinese, Indian or Himalayan, and Rhapontic.

### **Revandchini - medicinal properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphapiyta shamaka (reduces vitiated kapha and pitta dosha)

**Part used** - Underground stem, Root

**Dosage** - 0.2 g to 1 g

### **Chemical composition of Rheum emodi:**

The root gave emodin, emodin - monomethyl ether, chrysophanol, aloemodin, rhein. These occur free and as quinone, anthrone or dianthroneglycosides. The astringent principle consists of gallic acid together with small amounts of tannin. The drug also contain cinnamic and rheinolic acids, volatile oil, starch and calcium oxalate. Two major glycosidic active principles, sennoside A and B, are present along with free anthraquinones. Rhubarb also contains rhein acids and calcium oxalate. Rhubarb yields to alcohol about 40 % of extractives.

### **Habitat:**

Himalayas from Kashmir to Sikkim

Assam

Cultivated in China, Tibet, India, Germany and other European countries.

गन्धिनी पीतमूली च बल्या सा मृदुरेचनी ।

हन्त्यजीर्णमतिसारं वह्निमान्द्यमरोचकम् ॥ Ayurveda Vijnana

gandhinī pītamūlī ca balyā sā mṛdurecanī |

hantyajīrṇamatisāraṃ vahrimānhyamarocakam ||

### **Uses of Pitamuli:**

- The powdered root of Indian Rhubarb is sprinkled over wound for wound healing.
- The leaf stalk is used as fresh salad and vegetable.
- The powder of the stem and root is used in a dose of 0.5 g with hot water to relieve constipation.
- Cold infusion of the leaf of Pitamuli is given in a dose of 25 ml to treat dysmenorrhea and retention of urine.
- The powder of the root is used as dental powder for cleaning the teeth and treating gingivitis.
- The powder of the root of Rheum emodi is given in a dose of 1 g to treat hepatomegaly and jaundice.
- The fresh leaf of the plant improves the appetite and increases the digestive capacity and hence can be used as raw salad.

- The powder of the root of Pitamuli is given in a dose of 0.5 g with honey to treat cough and rhinitis.

**Adverse effects:** Excessive use of the roots of Pitamuli can cause increased peristaltic movement leading to diarrhea and cramps. Hence care should be taken during its use.

### **Ayurvedic medicines with Rubarb as ingredient:**

Chiniumco tablet: This is a proprietary Ayurvedic medicine used in the treatment of profuse bleeding from nose, intestine, piles, uterus etc.

Arjin tablet: This is a proprietary Ayurvedic medicine used in the management of hypertension.

Bleminor cream: It is a proprietary Ayurvedic medicine. Bleminor's anti - inflammatory property is beneficial in preventing hyper - pigmentation due to recurrent inflammation. It also aids in correcting skin discoloration resulting from injury.

Kankayan vati: This is a medicine in tablet form useful to treat intestinal worms, piles, bloating of the abdomen.

Panchamla taila: Panchamla Thailam is an Ayurvedic oil used externally for the treatment of ascites, rheumatoid arthritis and joint pain.

### **Research articles related to Rheum emodi:**

Anti - oxidant activity: This study aims to investigate antioxidant power of stilbenoids from R. emodi and then explore the material basis for its antioxidant potential. The

most abundant stilbenoid piceatannol - 4' - O -  $\beta$  - D - glucopyranoside (PICG) and its aglycon piceatannol (PICE) were isolated from *R. emodi* rhizome. Taking into account the rapid *in vivo* metabolic transformation of PICG into PICE it can be inferred that the most abundant stilbenoid PICG may be an important constituent responsible for the antioxidant potential of *R. emodi* and promising to be developed as an antioxidant agent for supplementary or therapeutic use.

Anti - microbial activity: Powders

of *S. mukorossi* and *R. emodi* were extracted successively with petroleum ether, benzene, chloroform and ethanol and were concentrated in vacuum. It was found that ethanol and chloroform extracts of *S. mukorossi* and ethanol and benzene extracts of *R. emodi* inhibited *H pylori* at very low concentrations. In the *in vitro* study, the isolates showed a considerable zone of inhibition at very low concentrations (10  $\mu$ g/mL) for both the extracts. In the *in vivo* study, the *H pylori* infection was cleared with minimal doses of extracts of *S. mukorossi* (2.5 mg/mL) and *R. emodi* (3.0 mg/mL) given orally for seven days.

Anti - fungal activity: Podophyllum hexandrum and Rheum emodi were investigated for their antimicrobial properties against pure cultures of clinical isolates of *Aspergillus niger* ATCC 1197 and *Candida albicans* ATCC 10231. The results of

the antimicrobial assay of the methanolic extracts of both the plant extracts indicated that the plants exhibited antimicrobial activity against the tested microorganisms at four different concentrations of 25mg/ml, 50mg/ml, 75mg/ml and 100mg/ml.

**Hepato - protective action:** The protective potential of the total Anthraquinone glycoside fraction of Rheum emodi was determined by evaluating Aminotransferase activity, mitochondrial membrane potential, calcium - induced liver MPT (Mitochondrial permeability transition) and VDAC expression. Pretreatment with a total Anthraquinone glycoside fraction of Rheum emodi showed significant preservation of mitochondrial membrane potential as compared to CCl<sub>4</sub> control demonstrating the mitochondrial protection. In addition, pretreatment with TAGF Rheum emodi at various concentrations exerted a dose - dependent effect against sensitivity to mitochondrial swelling induced by calcium.

### **Classical categorization:**

Bhavaprakasha - Dhatwadi varga

Nighantu Adarsha - Nagapushpadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Caryophyllales

Family: Polygonaceae



Genus: Rheum

Species: R. emodi

**Common Adulterants:**

Rheum Webbianum Royle.

Rheum Moorcroftianum Royle.

Rheum Spiciforma Royle.

Rheum Nobile Hook.

## **89. Ishwari Aristolochia indica Uses, Adverse effects, Research**

Ishwari - Aristolochia indica is an ayurvedic herb useful for the treatment of localized swelling, cases of poisoning by inducing vomiting, skin diseases, cough and painful periods.

Latin name - Aristolochia indica Linn.

Family - Aristolochiaceae

### **Names in different languages:**

Siddha name: Adagam

Hindi name: Isharmul, Isarmul, Hooka bel

English name: Indian Birthwort, Snake root

Arabic name: Zaravande

Assamese name: Jarvande

Bengali name: Ishormul, Isheri

Gujarati name: Sapsan, Ruhimula, Iswarimool

Kannada name: Ishwari Beru, ToppaluKonkani name:

Sapsikaddul

Marathi name: Sapasan

Malayalam name: Garudakkoti, Garudakkodi, Karaleyan,

Cheriyarayan

Oriya name: Gopikaron

Sinhalese name: Sapsanda

Tamil name: Adagam, Isadesatti, Isura, Isuramuli, Iyavari,

Karudakkodi, Kirttikodi, Neyar, Perumarindu, Perumaruntu,

Perunkilangu, Sarsugadi, Talaichuruli

Telugu name: Ishveraveru, Esvaraveru

Urdu name: Zarawand Hindi



**Sanskrit Synonyms:**

Nakuli, Ahigandha, Arkamula, Garuda, Ishvara, Ishvari, Nakuleshtha, Nakuli, Sunanda, Rudrajata, Ishwari, Naakuli, Arkmuula, Gandhnakuli, Nagadamani

**Morphology of Aristolochia indica:**

Aristolochia indica is a glabrous, shrubby or herbaceous perennial plant with woody root stock and long, slender, grooved, glabrous branches. It is found mostly in the Himalayan belt near Nepal, South India and Bengal up to an altitude of 3000 feet. The stem part of the climber is woody and thin. The leaves are 2 - 4 inch in length and 1 - 2 inch wide, variable, fiddle shaped to linear. It is glabrous with a slightly undulate margin. The flowers are 1 - 1.5 inch in length,

found in small clusters and they appear like hood of the cobra. They are purple colour inside and pale green in the outer rim. They bloom in the rainy season. The fruits are round and are found in the month of November to March. The seeds are triangular and flat. The roots of the plant are long and cylindrical with little bends. The outer side is brownish with white colour inside. They are bitter in taste and have camphor like odour.



**Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Root, Leaf

**Dosage** -

Root powder - 1 to 3 g

Leaf juice - 5 to 10 ml

**Chemical composition:**

Aristolochia sp. contains aristolochic acids and aristolactams.

The plant Ishwari, especially roots, contains Aristochine, Aristolochene, Ishwaronw, Aristolochine acid, Ishwarane, Cephaeradiones and Aritistolindiquinone.

**Uses of Ishwari:**

- The powdered root of Ishwari is given with honey in a dose of 3 g for **dropsy, leukoderma, tonsillitis and chronic dyspepsia.**
- One pinch of root powder of Aristolochia indica is taken with warm water to treat **fever, indigestion, and digestive disorders.**
- The paste prepared from the leaf of the plant is applied over the joints affected with pain and swelling.
- The paste of the fresh leaf is applied over the forehead with turmeric powder to reduce headache.

- The powder of the seed of Ishwari is mixed with warm water and applied over joints to reduce pain and inflammation.
- For **leucoderma, skin diseases, wounds and swelling** the paste of leaves is applied topically on affected areas.
- In patients suffering from cough, the juice of the leaf of Aristolochia indica is given in a dose of 5 - 6 ml to induce vomiting and remove the excessive kapha dosha.
- Cold infusion from the root of the plant is given in a dose of 40 - 50 ml to treat dysmenorrhea and difficulty in labor.
- Decoction of the root of Aristolochia indica is given in a dose of 30 ml to treat retention of urine.
- The fresh juice of the leaf is administered in a dose of 5 - 10 ml to induce vomiting in cases of poisoning from scorpion bite and snake bite.

नाकुलीयुगलं तिक्तं कटूष्णं च त्रिदोषजित् ।

अनेकविषविध्वंसि किञ्चिच्छ्रेष्ठं द्वितीयकम् ॥ रा.नि

नाकुली सुरसा नागसुगन्धा गन्धनाकुली ।

नकुलेष्टा भुजङ्गाक्षी सर्पाङ्गी विषनाशिनी ॥

नाकुली तुवरा तिका कटुकोष्णा विनाशयेत् ।

भोगिलूतावृश्चिकाखुविषज्वरकृमिव्रणान् ॥ भा.प्र.

nākulīyugalaṃ tiktam kaṭuśṇam ca tridośajit |  
anekaviśavidhvaṃsi kiñcicchreṣṭham dvitīyakam || rā.ni  
nākulī surasā nāgasugandhā gandhanākulī |  
nakuleṣṭā bhujāṅgākṣī sarpāṅgī viśanāśinī ||  
nākulī tuvarā tiktā kaṭukoṣṇā vināśayet |  
bhogilūtāvṛścikākhuviśajvarakṛmivraṇān || Bhavaprakasha.

**Adverse effects:** Excess use of the root and leaf of Ishwari can cause nausea, vomiting and abdominal cramps. Hence the herb should be used with extreme care.

### **Ayurvedic medicines containing Ishwari:**

**Gorochanadi vati:** Gorochanadi Gulika is a tablet, used in Ayurvedic treatment of fever, pneumonia, cough, cold, bronchitis, asthma, diseases of throat, tonsillitis, chronic fever.

**Pukaghanda:** It is an Ayurvedic medicine, in granules form. It is used in Ayurvedic treatment of vomiting, abdominal pain, dyspepsia, gastritis, bleeding diseases, anemia and constipation.

**Dandrux oil:** It is a proprietary Ayurvedic hair oil, used in the treatment of chronic dandruff.

[Mathala rasayana](#): Mathala Rasayanam is an Ayurvedic medicine in lehya form, used in digestive and respiratory diseases.

[Mahavishagarbha taila](#): Maha Vishagarbha Taila is a herbal oil used in Ayurvedic treatment of neuro - muscular conditions, sciatica, tetanus, stiffness and tightness in back and limbs, Tinnitus and lack of tactile sensation. It is used for external application.



### **Research articles related to Aristolochia indica:**

[Anti - microbial activity](#): The present study was designated to evaluate the antimicrobial activities of ethanolic extract of Aristolochia indica L. The antimicrobial activities of the extract against 12 strains belong to bacterial and fungi species were tested by using agar diffusion method. The results showed that ethanolic extract of Aristolochia indica had moderately significant antibacterial and significant antifungal activity. It



inhibited the growth of both bacterial and fungal species dose dependently. The inhibition of growth was highest at 100mg/ml as compared to the controls. Ethanolic extract showed stronger antimicrobial activity against the fungi than that of the bacteria.

**Nephro - protective action:** The aim of the study was to determine the protective effect of Aristolochia indica leaf extract on Gentamicin induced nephrotoxicity in rats using biochemical approaches. Oxidative stress is the main factor in Gentamicin (GM) induced nephrotoxicity. Nephrotoxicity was assessed by measuring the abnormal levels of serum creatinine, urea and sodium and decreased level of protein and potassium. Treatment with Aristolochia indica leaves (500 mg/kg) significantly ( $p < 0.05$ ) restored the levels of serum creatinine, urea, sodium, protein and potassium. Significantly ( $p < 0.05$ ) increased the antioxidant defence enzyme levels of SOD, GPx and CAT on treatment with Aristolochia indica. The results suggest that an Aristolochia indica leaf has the potential in preventing the nephrotoxicity induced by Gentamicin.

### **Classical categorization:**

Bhavaprakasha - Haritakyadi varga

Raja Nighantu - Mulakadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Piperales

Family: Aristolochiaceae

Genus: Aristolochia

Species: A. indica

## **90. Kitamari Aristolochia bracteata, Uses and Research articles**

Kitamari - Aristolochia bracteolata is a herb mentioned in Ayurveda for the treatment of wound, intestinal worms, dysmenorrhea, skin diseases and fever.

Latin name - Aristolochia bracteolata Retz. Aristolochia bracteata

Family - Aristolochiaceae

### **Names in different languages:**

Hindi name - Kitamar

English name - Bracteated birthwort, Pipewine

Bengali name - Kiramar, Patuvanga

Gujarathi name - Kiramar

Kannada name - Adu Muttada gida

Malayalam name - Aduthinnappalai

Marathi name - Kidamar

Oriya name - Paniri

Tamil name - Aduthinnarppalai

Telugu name - Gadide, Gadaparaku

Urdu name - Paniri

Deccan - Gandan, Gandati

### **Keetamari - Sanskrit Synonyms**

Dhumrapatra - The leaf is used for fumigation

Kitamari - Destroys the germs

### **Morphology of Aristolochia bracteolata:**

This is a small herb growing to a height of 1 - 2 feet and is found all over India in the temperate climate. The stem is smooth and little twining. The branches are sharp and small. The leaves are 2 - 3 inch long, kidney shaped and membranous. The under - surface has small mesh like structure. The flowers are purple colored, single, 1.5.2 inch long and covered with small hairy structures. The fruits are oval to round shape, 1 inch long. The seeds are triangular and flat.

### **Properties:**

Rasa (Taste) - Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Leaf, Root

### **Dosage -**

Powder - 1 to 3 g

Decoction - 50 to 100 ml

Fresh juice - 5 to 10 ml

### **Chemical composition:**

Leaves and fruit contain ceryl alcohol, aristolochic acid and beta-sitosterol. Roots contain aristolochic and Potassium chloride nitrates. It also contains bitter principle glucoside in nature named isoaristolochic and Allanton 0.05% alkaloid Aristolochin, essential oil containing carbonyl compound and a small amount of an oil with above of Isovanilin.

### **Uses of Kitamari:**

- The paste of the leaf of Kitamari is applied over the wounds for helping in quick healing.
- The decoction of the leaf of *Aristolochia bracteolata* is consumed in a dose of 50 ml to treat dysmenorrhea and difficulty in labor.
- The decoction of the bark or whole plant is taken in a dose of about 40 ml to treat intestinal worm.
- The paste of the leaf of Kitamari is applied over eczema for its treatment.
- The powder of the seed of *Aristolochia bracteolata* is given with powder of black pepper to treat fever.
- The paste of the root of *Aristolochia bracteolata* is applied over the area over localized swelling for its treatment.

**Adverse effects:** No known adverse effect is known or reported after the use Kitamari.

## **Research articles related to *Aristolochia bracteolata*:**

**Anti - microbial activity:** The present study describes the antimicrobial activity of the acetone, ethanol and petroleum ether extracts of the leaves, stem and root of *Aristolochia bracteolata* Lam. using agar diffusion method against human pathogenic bacteria, such as *Escherichia coli*, *Pseudomonas aeruginosa*, *Bacillus aureus* and *Klebsiella pneumoniae*. In the present research, all the extracts were found to be effective against four human bacterial species, *E.coli*, *P.aeruginosa*, *K.pneumoniae* and *B.aureus* sensitive to all the plant extracts.

**Anti - bacterial and anti - fungal action:** The phytochemical analysis of both the aqueous and methanolic extracts of the medicinal plant *Aristolochia bracteolata* Retz. and their antibacterial and antifungal activities against six pathogenic bacteria such as *Staphylococcus aureus*, *Streptococcus pyogenes*, *Leuconostoc lactis*, *Escherichia coli*, *Pseudomonas aeruginosa* and *Salmonella typhi* as well as four fungus namely *Aspergillus niger*, *Aspergillus flavus*, *Rhizopus indicus* and *Mucor indicus* were investigated. Antibacterial potentiality of aqueous and methanol solvent extract of mature leaves of *A. bracteata* was evaluated against the bacteria, highest antibacterial activity was observed against *Streptococcus pyogenes* (42 mm) and followed by *Pseudomonas aeruginosa* (38 mm) in methanol extract. But in the case of antifungal

activity the maximum inhibition zone found against *Rhizopus indicus* (18) in methanol extract. There is no activity antibacterial and antifungal activity found in the aqueous extract.

**Anti - inflammatory action:** Anti - inflammatory action with the ethanol extract of the leaves of the plant *Aristolochia bracteolata* showed significant action in wistar rats.

### **Scientific classification**

Kingdom: Plantae

Order: Piperales

Family: Aristolochiaceae

Subfamily: Aristolochioideae

Genus: *Aristolochia* L.

**Habitat:** Madhya pradesh, Uttar pradesh, West Bengal, South India, Srilanka

**Substitute:** [Aristolochia indica](#)

## **91. Mexican Tea - *Chenopodium ambrosioides* Uses, Research**

Sugandha vastuka - *Chenopodium ambrosioides* is a herb mentioned in Ayurveda for the treatment of intestinal worms, diarrhea, fever and indigestion.

Latin name - *Chenopodium ambrosioides* Linn. *Chenopodium ambrosioides*

Family - Chenopodiaceae

### **Names in different languages:**

Hindi name - Vathuya

English name - Worm seed, Sweet Pigweed, Mexican Tea, Jesuit's tea, *payqu (paico)*, *epazote*

Bengali name - Bathu sag

Nepalese name - Hyang hamo

Malayalam name - Kat ayamoddakam

Tamil name - Kattasambadam

Unani name - Bathua

**Synonyms:** Shwethacilli, Kshetra vastuka

### **Morphology of *Chenopodium ambrosioides*:**

The species of *Chenopodium* are annual or perennial herbs, shrubs or small trees. They are nonaromatic, but sometimes foetid. The young stems and leaves are often densely covered by vesicular globose hairs, thus looking farinose. Flowers consist of 4 - 5 perianth segments connate



basally or close to the middle, usually membranous margined and with a roundish to keeled back; almost always 5 stamens, and one ovary with 2 stigmas. In fruit, perianth segments become sometimes colored, but mostly keep unchanged, somewhat closing over or spreading from the fruit. Pericarp membranous or sometimes succulent, adherent to or loosely covering the seed. The horizontally oriented seeds are depressed - globular to lenticular, with rounded to sub - acute margin. The black seed coat is almost smooth to finely striate, rugulose or pitted. It grows mainly in West Bengal and Tamil Nadu. The plant is a native of West Indies and South America. The plant is currently known as ***Dysphania ambrosioides*** in Latin.

**Mexican tea medicinal properties:**

Rasa (Taste) - Madhura

Guna (Qualities) - Laghu (Light for digestion)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Tridosha hara (reduces all the three vitiated dosha)

**Part used** - Seed, Oil

**Dosage** -

Powder - 0.5 to 2 g

Oil - 5 to 20 drops

## **Chemical composition of *Dysphania ambrosioides*:**

The plant consists mainly of Chenopodium oil, Chenopodosides A and B, Ascaridole. The leaves contain kaempferol, rhamnoside and ambroside.

श्वेतचिल्ली सुमधुरा क्षरा च सा।

त्रिदोषशमनी पथ्या ज्वरदोषविनाशनी ॥ ( रा.नि)

śvetacillī sumadhurā kṣarā ca sā|

tridoṣaśamanī pathyā jvaradoṣavināśanī || ( rā.ni)

## **Uses of *Sugandha vastuka*:**

- The decoction of the leaf of *Chenopodium ambrosioides* is given in a dose of 30 ml to treat intestinal worms.
- The extracted oil is also effective in treating round worms, hook worm and tape worm in a dose of 10 drops.
- *Dysphania ambrosioides* is used as a leaf vegetable, herb, and herbal tea for its pungent flavor.
- The paste prepared from the root and leaf of the plant is applied over the area affected with localized inflammation for treatment.
- The extracted oil from *Chenopodium ambrosioides* is applied over the area affected with fungal infection as part of treatment.

**Adverse effects:** No known adverse effect is reported after the normal use of herb but the extracted oil should be used with caution as high dose can cause diarrhea leading to abdominal cramps and dehydration.

## **Research articles related to *Chenopodium***

### **ambrosioides:**

Anti - inflammatory action: This work aims to analyze the antinociceptive and anti - inflammatory responses of the crude hydroalcoholic extract (HCE) of *C. ambrosioides* leaves in an experimental OA model. *C. ambrosioides* HCE was effective in the treatment of OA because it reduced synovial inflammation and behavioral changes due to pain. This effect may be related to the antagonistic effect of ascaridole on the NMDA receptor.

Anti - microbial and Anti - fungal activity: Extracts from *C. ambrosioides* (Hex, DCM and EtOH) and *K. neglecta* (EtOAc and EtOH) showed high bioactivity against *A. salina* (LD<sub>50</sub> < 1000 µg/mL), which might be associated with cytotoxic activity against cancer cells. *C. ambrosioides* Hex and DCM showed specific activity against yeasts, highlighting the activity of hexanic extract against *Candida krusei* (MIC = 100 µg/mL).

Analgesic action: A methanol extract of the dried leaves of *Chenopodium ambrosioides* was investigated for anti - inflammatory and analgesic activities. The extract (300 - 700

mg kg<sup>-1</sup>, p.o.) produced a dose related inhibition of carrageenan - induced paw oedema and cotton pellet - induced granuloma in rats. The results of the present study further confirm the use of *Chenopodium ambrosioides* traditionally for the treatment of painful inflammatory conditions.

The study was done to evaluate the effect of the *Chenopodium ambrosioides* L (mastruz) extract for preventing bone loss and bone metabolism in ovariectomized rats. The cortical bone was significantly larger in the G2 than G1, whereas G1 presented the highest amount of adipocytes in the bone marrow (p<0.05). The blood levels of aspartate aminotransferase, triglycerides and cholesterol were significantly higher, whereas globulin and lactate dehydrogenase were smaller in G2 than G1. The hydroalcoholic extract of mastruz has effects on bone metabolism by changing blood proteins and enzymes and preventing both bone loss.

Anti - cancer property: The purpose of the study was to investigate the most effective compound of *C. ambrosioides* essential oil for the induction of cell death in human breast cancer cells (MCF - 7), and the mechanism of induction. MTT results showed that essential oil and its two main compositions significantly inhibited the growth of MCF - 7 cells in 24 h (p < 0.05), which was consistent with the Live/dead cell fluorescent staining results. The data suggest that the essential oil of *C.*

ambrosioides and its two main components inhibit MCF - 7 cell proliferation cell death by inducing oxidative damage. However, the two main components are less effective in their anticancer activity than the essential oil.

### **Scientific classification**

Kingdom: Plantae

Order: Caryophyllales

Family: Amaranthaceae

Subfamily: Chenopodioideae

Tribe: Atripliceae

Genus: Chenopodium L.

## **92. Kankola Piper cubeba Uses, Remedies, Research, Side Effects**

Kankola - Piper cubeba is a herb mentioned in the ayurvedic pharmacopoeia for the treatment of cough, swelling, dysmenorrhea, erectile dysfunction and indigestion. In Ayurveda, it is used as the legal substitute for Musk.

Latin name - Piper cubeba

Family - Piperaceae

### **Names in different languages:**

Hindi name - Kababcheeni, Sheetalcheeni

English name - Tail pepper, Cubeb, Java pepper

Arabic name - Kababesini, Kababh, Kibabeh

Bengali name - Kababcheeni

Gujarathi name - Tadamiri

Kannada name - Bala menasu, Gandha menasu

Malayalam name - Valmulaku, Cheenamulaku

Marathi name - Himsimiri

Persian name - Kababcheeni, Kibabeh, Hab - el - arus

Tamil name - Valmulaku

Telugu name - Tokamiriyalu, Chalavamiriyalu



### **Sanskrit synonyms of Kankol:**

Gandha maricha, Sugandha maricha - Has strong and pleasant smell

Katuka Phala, Kola, Katuphala - spice

Bahuphala - the fruits appear in bunches

Maaricha, Sthoola maricha - slightly larger than the size of pepper

madyachoshita, Krutaphala, Kolaka,

Dveepa Maricha, Koshaphala, Madhavochita, Rudrasammita

### **Morphology of Piper cubeba:**

Kankola is a climber with strong woody stem. The leaf is 5 - 6 inch long, cardiac shape and dark green colored. The flowers are small, found in clusters and unisexual. The fruits are little round and resemble pepper, strong flavored. The flowers and fruits are seen in the winter season. The fruits are gathered before they are ripe, and carefully dried. The dried pericarp is wrinkled, and its color ranges from grayish brown to black.

The seed is hard, white and oily. The plant is seen and cultivated in South India especially in Kerala and Karnataka.



### **Kankola medicinal Properties:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Fruit

**Dosage** -

Powder - 1 to 3 g

Oil - 1 to 3 drops



### **Chemical composition:**

Unripe fruit contains volatile oil (10 - 20%) consisting of sesquiterpene hydrocarbons; lignans, mainly cubebene (about 2%), with - cubebinin and kinokinin; cubebic acid. The oxygenated cyclohexanes, piperenol A and B, together with crotopoxide and zeylenol, have been isolated from the fruit. Cubeb oil extracted from the fruit, is slightly greenish, but becomes colourless on rectification. It has the odour of Cubebs, and a warm aromatic camphoraceous taste. In addition fruits contain resinous matter (6.4.8.5%) gum, colouring matter, fixed oil, starch and nitrogenous substance. The plant also contains Piperine, Sesamin, Cubenin, Hinokinin, Clusin, Dihydrocubebin, Yatein, Cubebinionolide, Cubebinone, Isoyatein, Di - o - methyl thialplicatin methylether, two other Dibenzyl butyrolactone ligans and a Heptahydro naphthalene derivative.

### **Uses of Kankola:**

- The paste of the fruits of Kankola is made into paste and applied over area affected with swelling and pain.
- The powder of the fruit is mixed with honey and applied over mouth ulcer and inflammation of the gums.

- The powder of the fruit of Kankola is mixed with honey and consumed in a dose of 4 to 5 g to treat cough and sinusitis.
- 3 - 5 drops of oil extracted from the plant of Kankola is mixed with a glass of warm water and consumed to treat indigestion and improve the appetite.
- Intake of the fruit powder mixed with sugar candy and milk is beneficial to treat erectile dysfunction.
- Cold infusion prepared from the fruit of Piper cubeba is consumed in a dose of 30 - 40 ml to treat dysmenorrhea and difficulty in micturition.
- The powder of the fruit of Kankola is mixed with water and made into paste. This paste is applied over the male genital organ (penis) to promote sexual pleasure during coitus.
- It is used as the Pratinidhi dravya - legal, traditional substitute for musk (Kasturi) - Reference: Bhavaprakasha.
- Jatipushpa - Jasmine flower is the legal substitute for Kankola.

कङ्कोलं लघुतिकोष्णं तीक्ष्णं हृद्यं रुचिप्रदम् ।

कफानिलास्यदौर्गन्ध्यहृद्रोगकृमिमान्द्यजित् ॥ कै.नि.

चूर्णं कन्दफलं द्वीपं मारिचं माधवोचितम् ॥

कङ्कोलं कटुतिक्तोष्णं वक्त्रवैरस्यनाशनम् ।

मुखजाड्यहरं रुच्यं वातश्लेष्महरं परम् ॥ ध.नि.

कस्तूर्यभावे कङ्कोलं क्षेपणीयं विदुर्बुधाः ।

कङ्कोलस्याप्यभावे तु जातीपुष्पं प्रदीयते ॥ भा.प्र.

कङ्कोलं लघु तीक्ष्णोष्णं तिक्तं हृद्यं रुचिप्रदम् ।

आस्यदौर्गन्ध्यहृद्रोगकफवातामयान्ध्यहृत् ॥ भा. प्र

कङ्कोलं कटु तिक्तोष्णं वक्त्रजाड्यहरं परम् ।

दीपनं पाचनं रुच्यं कफवातनिकृन्तनम् ॥ रा.नि.

kaṅkolam laghutiktoṣṇam tīkṣṇam hr̥dyam rucipradam |

kaphānilāsyadaurgandhyahr̥drogakṛmimāndyajit || kai.ni.

cūrṇam kandaphalam dvīpam māricam mādhavocitam ||

kaṅkolam kaṭutiktoṣṇam vaktravairasyanāśanam |

mukhajāḍyaharam rucyam vātaśleṣmaharam param || dha.ni.

kastūryabhāve kaṅkolam kṣepaṇīyam vidurbudhāḥ |

kaṅkolasyāpyabhāve tu jātipuṣpam pradīyate ||

Bhavaprakasha.

kaṅkolam laghu tīkṣṇoṣṇam tiktam hr̥dyam rucipradam |

āsyadaurgandhyahr̥drogakaphavātāmayāndhyahr̥t || bhā. pra

kaṅkolam kaṭu tiktoṣṇam vaktrajāḍyaharam param |

dīpanam pācanam rucyam kaphavātānikṛntanam || rā.ni.

## **Kankola - qualities and uses as per Ayurveda:**

Laghu - light to digest

Teekshna - strong, piercing

Hrudya - acts as cardiac tonic, congenial for heart

Ruchiprada - improves taste perception

Deepana - improves digestion strength

Pachana - Digestive, relieves Ama Dosha

### **Indicated in -**

Asyadaurgandhya - Halitosis, bad breath

Hrudroga - cardiac disorders

Krumi - worm infestation

Agnimandya - low digestion strength

**Adverse effects of cubeb:** Excess intake of Kankola can cause hyperacidity and regurgitation. It may increase Pitta Dosha.



## **Ayurvedic medicines containing Kankola:**

**Diureston tablet:** It is a proprietary Ayurvedic medicine to treat renal calculi, retention of urine etc.

**Bangshil tablet:** It is a proprietary Ayurvedic medicine to treat genito - urinary tract infections, chronic vaginitis, cystitis and enlarged prostate.

**Kalamegha strong liquid:** It is a proprietary Ayurvedic medicine used for liver and intestinal disorders. It is also used as an anti - pyretic, anthelmintic, blood purifier and liver tonic.

**Femlin tablet:** It is a proprietary Ayurvedic medicine to treat vaginitis, Leucorrhoea, Senile vaginitis, pelvic girdle pain, Trichomonas vaginitis, Gonococcal infection and other associated vaginal discharges.

**Reprost capsule:** It is a proprietary Ayurvedic medicine to treat Benign prostate hypertrophy, uraemia, anuria.

**Haritakyadi rasayanam:** It is an ayurvedic formulation in leha form used for the treatment of constipation, asthma and respiratory conditions. It is also known as Hareetakyadi Rasayanam Lehyam.

**Jeerakarishtam:** Jeerakarishtam is an effective medicine used in post natal care, indigestion, diarrhea and Irritable bowel syndrome.

Pugakhanda: It is an Ayurvedic medicine in granules form and is useful to treat vomiting, abdominal pain, dyspepsia, gastritis, bleeding diseases, anemia and constipation.

Khadiradi vati: It is a tablet used to treat bad breath, oral ulcers, diseases of teeth etc. It is advised to keep this tablet in mouth and swallow its pieces slowly.

Drakshasava: It is a liquid Ayurvedic Medicine, useful in cardiac disorders, hemorrhoids, fever, piles, fistula, indigestion, bleeding diseases, intestinal worms.

### **Research articles related to Piper cubeba:**

Hepato - protective action: The present study was aimed at investigating the possible potential hepato - protective effects of the Piper cubeba ethanolic extract (PCEE) against CCl<sub>4</sub> - induced hepatic injuries in male Wistar rats. The dried fruits (500g) were coarsely powdered and macerated in 3L of 70% ethanol for 72h using percolation method. The solvent was then removed at 40°C under reduced pressure in a rotatory evaporator. The Piper cubeba ethanolic extract (PCEE) was then suspended in distilled water just before its administration to the animals. Findings of this study demonstrated that PCEE is effective in prevention of CCl<sub>4</sub> - induced hepatic damage in rats.

Anti - oxidant activity: The present study was aimed to extract the phytochemical compounds in different solvent system in

Piper nigrum and Piper cubeba. In preliminary screening and confirmatory test it was identified as alkaloid. High antioxidant activity was found in Piper cubeba ethanol extract i.e.

77.61±0.02% in comparison to Piper nigrum extracts with 74.61±0.02% with IC50 values 10.54±0.12µg/mg and 14.15±0.02 µg/mg respectively.

### **Classical categorization of Kankola**

Bhavaprakasha - Karpooradi varga

Dhanvantari Nighantu - Chandanadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Chandanadi varga

### **Scientific classification**

Kingdom: Plantae

Order: Piperales

Family: Piperaceae

Genus: Piper

Species: P. cubeba

**Distribution:** Java, Sumatra, Malay, India, Singapore, South India (Mysore)

### **Substitutes and adulterants:**

P. ribesiodes and P. sumatrana

P. clusii and P. guineense

### **93. Patra - Cinnamomum tamala Uses, Research, Remedies**

Patra - Cinnamomum tamala is an ayurvedic herb mentioned for the treatment of bad odor from mouth, black spots on the face, dental caries, swelling, cough and in complications of tuberculosis.

Latin name - Cinnamomum tamala Nees.

Laurus nobilis

Family - Lauraceae

#### **Names in different languages:**

Hindi name - Tejpat, Dalchini, Silkanthi, Kikoa, Kirkiria, Taj kalam, Taj kalami, Talispatri

English name - Indian Bay leaf, Malabar leaf, Indian bark, Indian cassia

Assamese name - Dopatti

Arabic name - Sazij, Zarnab

Bengali name - Tejapat, Daruchini

Gujarathi name - Tamal patra, Tej

Kannada name - Patra, Dalchini

Marathi name - Tamalapatra, Daalchinitikki, Sambarapana

Malayalam name - Pacilla

Punjabi name - Tejpatra

Oriya name - Tejpatra

Tamil name - Talisapatri



Telugu name - Akupatri, Pattaakulu, Tallishapatri, Talisha

Tulu name - Ijin



### **Morphology of Cinnamomum tamala:**

Tejpatta is a small tree growing to a height of 20 - 30 feet and is seen all over South India and Sri Lanka in the temperate climate. The bark of the tree is little brittle when cut and is brown in color with good odor. The leaves are thick, 4 to 7 inch in length with deep vein like structure in the upper surface and have a strong odor when crushed. Flowers are seen in clusters and have a strong odor. Fruits are round; purple colored and has a single seed inside. Flowers are seen in the month of January and the fruits appear in the month of May - August. Mainly three varieties of Tejpatra are available - Indian, Sinhalese and Chinese.

### **Medicinal properties of Indian Bay leaf:**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter), Madhura (Sweet)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha), Pittavardaka (Increases pitta dosha)



**Part used** - Leaf, Bark, Oil

**Dosage** -

Bark powder - 1 to 3 g

Leaf powder - 1 to 3 g

Oil - 2 to 5 drops

**Chemical composition:**

The oil from bark contains cinnamaldehyde (70 - 85%) as major constituent. Leaves from Nepal yield a volatile oil, containing mainly linalool 54.55%; cinnamaldehyde 1.45%,

alpha - and beta - pinene, p - cymene and limonene. In essential oil from the leaves, mostly *monoterpenoides* were found. Linalool [50%] is a major compound.  $\alpha$  - pinene, p - cymene and limonene range around 5 - 10% each. *Phenylepropanides* appear in little amount.

### **Uses of Tejpatra:**

- The dried leaf and bark of Tejpatra is used as spice in many cuisines all over the world.
- The powder of the bark of *Cinnamomum tamala* is used as tooth powder to treat dental caries, bad odor and gingivitis.
- Powder of the bark of Tejpatra is mixed with honey in a dose of 3 - 5 g to treat cough and asthma.
- The oil extract of *Cinnamomum tamala* is used in a dose of 3 to 5 drops to treat dysmenorrhea and inflammation of the uterus.
- The paste of the bark of the plant is applied as paste over the area affected with swelling and pain.
- The oil of the herb is given in a dose of 3 to 6 drops to treat health complications arising out of tuberculosis.
- The cold infusion of the bark of *Cinnamomum tamala* is given in a dose of 30 - 40 ml to improve the strength of cardiac muscles and stimulate the renal function.

- *Running nose* - powder of cinnamon, patra, black pepper, cardamom should be inhaled.
- Obesity - An ointment of patra, agaru, usheera and chandana removes foul smell of body in case of obesity(Vrinda madhava)
- It is used in preparation of anjana,hence used in variousIt is aromatic drug, hence used as one of sugandhadravayas.
- Compound pill is used in *kaasa, flatulence* and *dyspepsia*.
- Oil distilled from the leaves is used in flavouring sweets and confectionaries.
- Bark is used in treating
- It is used as stimulant and also in *Colic* and
- Given in kwatha or churna in suppression of lochia after child birth,with much benefit.
- Leaf is *diuretic*,good for liver and speen.
- Used in inflammation, sore eyes and stops salivation.

तमालपत्रकं पत्रं तामसं वस्त्रमंशुकम् ॥

पलाशं रोमशंलोमतमालञ्छदनं दलम् ।

पत्रकं मधुरं किञ्चित् तीक्ष्णोष्णं पित्तलं लघु ॥

निहन्ति कफवातार्शोहृल्लासारुचिपीनसान् । कैयदेवनिघण्टु - ओषधिवर्ग

तमालपत्रं पत्रं स्यात्पलाशं छदनं दलम् ।

रामं तापसजं वासो गोपनं वस्त्रमंशुकम् ॥

पत्रकं कफवातार्शोहृल्लासारोचकापहम् ॥ धन्वन्तरिनिघण्टु -

शतपुष्पादिवर्ग

पत्रं तमालपत्रञ्च तथा स्यात्पत्रनामकम् ।

पत्रकं मधुरं किञ्चित्तीक्ष्णोष्णं पिच्छिलं लघु ।

निहन्ति कफवातार्शोहृल्लासारुचिपीनसान् ॥ भावप्रकाश - कर्पूरादिवर्ग

पत्रं तमालपत्रञ्च पत्रकं छदनं दलम् ।

पलाशमंशुकं वासस्तापसं सुकुमारकम् ॥

वस्त्रं तमालकं रामं गोपनं वसनं तथा ।

तमालं सुरभिगन्धं ज्ञेयं सप्तदशाह्वयम् ॥

पत्रकं लघु तिक्तोष्णं कफवातविषापहम् ।

वस्तिकण्डूतिदोषघ्नं मुखमस्तकशोधनम् ॥ राजनिघण्टु - पिप्पल्यादिवर्ग

tamālapatrakam patram tāmasam vastramaṁśukam ॥

palāśam romaśam lomatamālañchadanam dalam |

patrakam madhuram kiñcit tikṣṇoṣṇam pittalam laghu ॥

nihanti kaphavātārśohṛllāsārucipīnasān | kaiyadevanighaṇṭu -  
oṣadhivarga

tamālapatram patram syātpalāśam chadanam dalam |

rāmaṁ tāpasajam vāso gopanam vastramaṁśukam ॥

patrakam kaphavātārśohṛllāsārocakāpaham ॥

dhanvantarinighaṇṭu - śatapušpādivarga

patraṃ tamālapatrañca tathā syātpatranāmakam |  
patrakam madhuraṃ kiñcittikṣṇoṣṇam picchilam laghu |  
nihanti kaphavātārśohṛllāsārucipīnasān || bhāvaprakāśa -  
karpūrādivarga  
patraṃ tamālapatrañca patrakam chadanaṃ dalam |  
palāśamaṃśukam vāsastāpasam sukumārakam ||  
vastraṃ tamālakaṃ rāmaṃ gopanaṃ vasanaṃ tathā |  
tamālam surabhighandham jñeyam saptadaśāhvayam ||  
patrakam laghu tiktoṣṇam kaphavātaviṣāpaham |  
vastikaṇḍūtidoṣaghnam mukhamastakaśodhanam ||  
rājanighaṇṭu - pippalyādivarga

### **Uses as per Ayurveda:**

Teekshna - strong, piercing

Ushna - hot

Pittala - Increases Pitta Dosha

Laghu - light to digest

Kaphavatahara - Balances Kapha and Vata Doshas

Mukhashodhana - cleanses oral cavity

Mastakashodhana - cleanses facial skin,

### **Indicated in -**

Arsha - haemorrhoids

Hrullasa - nausea

Aruchi - anorexia

Peenasa - rhinitis

Visha - Toxic conditions, poisoning

Bastiroga - diseases of urinary tract

Kandu - itching, pruritis

**Adverse effects:** Increased use of Tejpatra can cause hyperacidity and oral ulcers.

### **Ayurvedic medicines containing Tejpatra:**

[Bangshil tablet:](#) It is a proprietary Ayurvedic medicine used for the treatment of urinary tract infections, cystitis, urethritis, chronic vaginitis etc

[Arjunin capsule:](#) It is a proprietary Ayurvedic medicine used for the strengthening of cardiac muscle, reduce palpitation and improve the lung capacity during respiration.

[Aptoiz syrup:](#) It is a proprietary Ayurvedic medicine used as an appetizer and improves digestion.

[Thyrocap capsules:](#) It is a proprietary Ayurvedic medicine used for treatment of thyroid disorders.

[Branchozen capsule:](#) It is a proprietary Ayurvedic medicine used for treatment of productive and dry cough, respiratory infections and asthma.

[Amirikalp gold:](#) It is a proprietary Ayurvedic medicine in lehya form, used for treatment of respiratory infection, cough, anemia and improve the general health of the person.

[Ajeerna pachana choorna:](#) It is a proprietary Ayurvedic

medicine in powder form used for digestion of the food, bloating of abdomen and regurgitation.

Lodhrasava: It is a liquid Ayurvedic medicine used in leucoderma, anemia and obesity.

Punarnavadyarishta: This is an ayurvedic medicine in liquid form used for the treatment of cardiac diseases, vertigo, constipation, urinary tract infection and fistula.

Kadalimadhusnuhee granules: It is a proprietary Ayurvedic medicine in powder form used for the treatment of Leucorrhoea, Gonorrhoea, Cystitis, Dysmenorrhoea, Genito - urinary infections, Infectious wounds and ulcers.

Laghupooga pak: Laghupoogapak is an Ayurvedic medicine, in paste form used in treatment of anorexia, vomiting, and post delivery period of women.

### **Research articles related to Cinnamomum tamala:**

Anti - ulcer activity: The present study was designed to study the antiulcer potential of 50% ethanolic extract of Cinnamomum tamala (EECT) on experimentally induced ulcer models like pylorus ligation, ethanol, and aspirin. The results of the present investigation reveal that in all three models studied, EECT (50,100 and 200 mg/kg,p.o) produced a dose - dependent significant protection against ulcer models in animals. The results indicated that ethanolic extract of Cinnamomum tamala shows significant antiulcer activity by



inhibiting the gastric lesions and provides the significant gastroprotective effect which may be associated with its antioxidant property.

**Anti - microbial activity:** In the present study phytochemical constituents, elemental composition and antimicrobial potential of the crude methanolic extract of *Cinnamomum tamala* leaves were explored. Antimicrobial potential of the crude extract and its fractions i.e. aqueous, n - hexane, dichloromethane and isobutanol were tested against six gram - negative, three gram - positive bacterial strains and one fungal strain by agar well diffusion method. The evaluated extracts evaluated showed variedable degree of inhibition zones against all tested microbes except dichloromethane, aqueous fraction and crude extract which were completely inactive against *Salmonella typhi*.

**Anti - depressant activity:** The current study was designed to explore anxiolytic, antidepressant, and antistress actions of *Cinnamomum tamala* (CT) leaves (aqueous extract) in rats. CT at 400 mg/kg produced an antianxiety effect equivalent to lorazepam, in the elevated plus maze, open field, and social interaction tests among selected doses of the CT. CT at 400 mg/kg also induced an antidepressant activity similar to imipramine, in the behavioral despair, learned helplessness test, and tail suspension among selected doses of the CT.

Moreover, CT at 400 mg/kg produced a significant antistress effect comparable to *W. somnifera* in water immersion - restraint stress by decreasing ulcer index, adrenal gland weight, and by normalizing the plasma levels of corticosterone, glucose, cholesterol, and triglyceride levels when related to stress control.

**Sanskrit Synonyms:**

Chadana, Twak - The bark of the plant is used

Utkat - It is strong

Dala, Tamala Patra, Patra - The leaf is used

Gopana, Surabhi gandha - Has a good odor

Sukumaraka, Tapasajam, Vasana, Vastramamshuka, Palasha, Romasha, Chadanam

**Classical categorization:**

Bhavaprakasha - Karpooradi varga

Dhanvantari Nighantu - Shatapushpadi varga

Raja Nighantu - Pippalyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Nigantu Adarsha - Karpuradi varga

Madanapala Nigantu - Karpuradi varga

Priya Nigantu - Harthakyadi varga

Astanga Hridaya - Eladigana

Brihathg Nigantukara - Karpuradi varga

Shaligrama Nigantu - Harithakyadi varga

## **Scientific classification**

Kingdom: Plantae

Order: Laurales

Family: Lauraceae

Genus: Cinnamomum

Species: C. tamala

## **Habitat:**

Mainly found in *Himalayan region*, south slopes of Himalayas, Khasi, Jaintia hills, west Bengal, Assam.

## **History:**

As the name indicates the main part used is *patra*. The main feature of patra is that it is aromatic, having dark green coloured three veined. Leaves yield aromatic oil which is having very good medicinal value. It is also called by the names like 'pungent leaf', 'Indian bay leaf', 'Cinnomomum'. They were well known to the Romans under the name Malobathrum and used both for perfumery and cooking.

Indian bay leaves were available during the middle ages and were used for bees brewing till the sixteenth century. In Moghul cooking style much used is made of sweet and aromatic spices, hence this Cinnomomum, cloves and cardamom are considered as most important spices.

## **More vernacular names:**

Burmese name - Thitchabo, Thitkyabo

Danish name - Indish Laurbaerblad

Espernato name - Hinda Cinnamomo

Finnish name - Lauries des Indes

German name - Indisches Lorburblatt

Hungarian name - Indiai baberlevel

Japanese name - Tamara - nikkei, Tezipatto

## **94. Medasaka: Litsea chinensis Uses, Remedies, Research**

Medasaka - Litsea chinensis is a plant used for the treatment of cough, swelling, fracture, diarrhea and dryness of the skin.

Latin name - Litsea chinensis Lour.

Family - Lauraceae

### **Names in different languages of Medasak:**

Hindi - Maida lakadi

English - Common tallow laurifolia

Arabic name - Magase

Bengali name - Kukurachithe

Gujarathi - Meda lakadi

Malayalam - Karkameda

Parsi name - Kilj

Punjab - Medasaka

Tamil - Medala Kavi

Telugu - Meda

### **Sanskrit Synonyms:**

Gandhaparna - The leaves are aromatic

Sadaparna - The leaves are always green and lush

Medakavi

### **Morphology of Litsea chinensis:**

Medasaka is an evergreen tree growing to a height up to 20 - 25 m and is found all over India to an altitude of 4500 feet.

The bark of the tree is pale brown outside and reddish colored from inside. The leaves are 4 - 6 inch long and covered by small hair like structure. The flowers are small and yellow in color. They are seen in the month of June - July. The fruits are small, round and black to purple in color, seen in the month of September - October.

### **Medicinal properties of Litsea chinensis**

Rasa (Taste) - Katu (Pungent), Tikta (Bitter), Kashaya (Astringent)

Guna (Qualities) - Laghu (Light for digestion), Snigdha (Slimy)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Vata shamaka (reduces vitiated vata dosha)

**Part used** - Bark

**Dosage** -

Powder - 1 to 3 g

### **Chemical composition of Litsea chinensis:**

The bark of the tree contains Laurotetanine, actinodaphnine, boldine, norboldine, sebiferine. The leaves contain flavonoid, naringerin, naringin kaempferol, 7 - glucoside, quercetin and its 3 - rhamnaside peglaragonidin - 3 and 5 - glucoside cystine, glycine etc.

मेदासको लघुः स्निग्धः कटुस्तिक्तः कषायकं ।

उष्णोवातकफौ हन्ति शोथशूलविनाशनः ॥

दीपनः स्तम्भनश्चैव सर्ववातविकारनुत् ।

अग्निमांहेऽतिसारे च रक्तस्रावे च उज्यते ॥ ( द्र.गु.वि)

मेदासको लघुः स्निग्धः कटुस्तिक्तः कषायकं ।

उष्णोवातकफौ हन्ति शोथशूलविनाशनः ॥

दीपनः स्तम्भनश्चैव सर्ववातविकारनुत् ।

अग्निमांहेऽतिसारे च रक्तस्रावे च उज्यते ॥ ( द्र.गु.वि)

### **Uses of Medasaka:**

- The powdered bark of the plant, known as jiggat, may be used as an adhesive paste in incense stick
- Bark extract oil from *Litsea chinensis* shows anti-helminthic activity against earth worms and tapeworms in a dose of 5 - 8 drops.
- The grinded bark is used as paste externally in bruises, sprains, rheumatic and gouty joints. It is also used as a styptic dressing for wounds.
- The decoction of the bark of Medasaka is consumed in a dose of 15 - 20 ml to treat diarrhea and bleeding piles.

- The oil extracted from the bark of the tree is applied externally to relieve pain and inflammation of the joints.
- The paste of the bark of Medasaka is applied over the area of fractures and covered with cloth, to fasten healing.
- The oil of Litsea chinensis is gently rubbed over skin to prevent drying of skin.
- The cold infusion prepared from the leaf of Medasaka is given in a dose of 25 - 30 ml to treat cough and low back ache.

**Adverse effects:** No known adverse effect is known or reported after the normal use of Medasaka.

### **Ayurvedic medicines containing Medasaka:**

[Asthi sandanak lepa](#): It is an Ayurvedic medicine in paste form, used to apply externally to heal fractures and dislocations.

[Bonton capsule](#): It is a proprietary Ayurvedic medicine. It promotes early fracture reunion, improves blood supply at fracture site, reduce associated pain and inflammation. Improves bone mass density.

### **Research articles related to Litsea chinensis:**

[Analgesic activity](#): The present study was designed to evaluate analgesic potential of the ethanolic extract of the bark of the plant. The extract, at the dose of 100 and 300 mg/ Kg, has



shown a significant ( $p < 0.05$ ) increase in pain threshold in hotplate, as compared with control group.

Anti - nociceptive property: Antinociceptive property of leaves extract of *Litsea glutinosa* was evaluated by abdominal writhing and tail flick methods using mice. Ethanol extract of leaves was tested at three different concentrations 100 mg/kg, 200 mg/kg and 300 mg/kg body weight orally. Results showed that, among three different dosages, dosage of 300mg/kg (65%) significantly inhibited the nociception induced by acetic acid when compared to dosage of 100 mg/kg (36.64%) and 200 mg/kg (52.79%).

Anti - pyretic and anti - inflammatory action: The study was conducted to evaluate the *in vitro* thrombolytic activity, and *in vivo* analgesic, anti - inflammatory and antipyretic potentials of different hydrocarbon soluble extracts of *Litsea glutinosa* leaves. Our results yield that the crude hydroalcoholic extract has better effects than the other in all trials. In the context, it can be said that the leaves of *L. glutinosa* possess remarkable pharmacological effects, and justify its traditional use as analgesic, antipyretic, anti - inflammatory, and thrombolytic agent.

### **Classical categorization:**

Bhavaprakasha - Parishesha

Nighantu Adarsha - Karpooradi varga

**Samsthana prayoga:**

Bahya - Sandhisotha, Asthibhagna, Abhighata

Abhyanthara - Grdhrasi, vataraktha, katisoola, Amavata.

Pachana Samsthana - Agnimandhya, Atisara.

Rakthavaha Samsthana - Sotharoga.

Swasanavaha - Jirnakasa

Prajanana - Klaibya

## **95. Bandaka: Dendrophthoe falcata Uses, Remedies, Research**

Bandaka - Dendrophthoe falcata is a herb mentioned in Ayurveda for the treatment of diarrhea, swelling, renal calculi, epilepsy and protection of the fetus.

Latin name - Dendrophthoe falcate Linn.

Family - Loranthaceae

### **Names in different languages:**

Hindi name: Bandaa, Banda, Banda Patha

English name: Mistletoe, Honey Suckle

Bengali name: Maandaa, Bandha, Pharulla

Gujarathi name: Baando, Bando

Kannada name: Badanike, Maduka

Konkani name: Bemdram

Kashmiri name: Ittikkanni, Itil

Malayalam name: Itil, Ittikkanni

Marathi name: Bandagul, Bandgul, Vanda

Punjabi name: Pulluri

Tamil name: Baadanikaa, Jiddu

Telugu name: Jeevakamu, Badanika, Jiddu, Yelinga

### **Sanskrit Synonyms of Bandaka:**

Padaparuha, Vrksadani, Vrksaruha, Vrikshabakshya, Taruruha -

Plant is parasitic in nature

Samharsa, Gandhabhedini, Tarubhaksha, Drupadi, Shekhari, Kamarupaka, Kamini, Padmarupini,

### **Morphology of Dendrophthoe falcata:**

Banda is indigenous to India, Srilanka, Thailand, Indo - China border and Australia. It is a much branched, bushy **flowering** hemi - parasitic plant classified as **mistletoes**.

Though it photosynthesizes but depends on host plant for water, nutrients and minerals. It sucks the tree by penetrating through xylem and phloem.

**Leaves** are simple, leathery, entire, thick, persistent, sessile or semi sessile, 7.5 - 18 by 2 - 10 cm, petiolate, exstipulate, alternate or in whorls of three or opposite, and evergreen.

**Flowers** are large, tubular, bisexual and bright red colored, develop in clusters, red in color and are arranged in

spike. **Fruits** are pseudocarp, where ovary got fused with receptacular cup developing a berry like fruits which are single seeded. The disease for which Vanda is used depends on the host plant as it draws water and minerals from the host plant.

### **Properties:**

Rasa (Taste) - Kashaya(Astringent), Tikta (Bitter), Madhura (Sweet)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha)

**Part used** - Whole plant

**Dosage** -

Fresh juice - 10 to 20 ml

### **Chemical composition of *Dendrophthoe falcata*:**

The plant contains several flavonoids. Being parasitic, different flavonoids have been recorded in plants growing on different host plants. Quercitrin has been found to be the major common constituent. The plant also contains gallic, ellagic and chebulinic acids. The plant also contains kempferol, rutin<sup>11</sup>, tannins,  $\beta$ -sitosterol, stigmasterol,  $\beta$ -amyirin and oleanolic acid.

### **Uses of Bandaka:**

- The paste of the leaf of Bandaka is applied over wounds for quick healing.
- The juice of the leaf of *Dendrophthoe falcate* is given in a dose of 10 - 15 ml to treat renal calculi and retention of urine.
- Fresh juice in a dose of 5 - 10 ml is given with buttermilk to treat diarrhea.

- The paste of Bandaka is applied over area affected with swelling and pain.
- The juice of the plant is used to treat epilepsy and psychiatric diseases.
- The juice of Bandaka is used to retain fetus in patients having chances of abortion.

It is to be noted that the medicinal use of Bandaka depends on the plant in which the plant is found.

वन्दाकः शीतलः पाके ग्राही स्याद्व्रणरोपणः | ध.नि.

बन्दाकः स्याद्धिमस्तिकः कषायो मधुरो रसे |

माङ्गल्यः कफवातास्ररक्षोव्रणविषापहः ||भा.प्र.

वन्दाकस्तिकशिशिरः कफपित्तश्रमापहः |

वश्यादिसिद्धिदो वृष्यः कषायश्च रसायनः ||रा.नि.

vandākaḥ śītaḥ pāke grāhī syādvraṇaropaṇaḥ | dha.ni.

bandākaḥ syāddhimastiktaḥ kaṣāyo madhuro rase |

māṅgalyaḥ kaphavātāsrrarakṣovraṇaviṣāpahaḥ

||Bhavaprakasha.

vandākastiktaśīśiraḥ kaphapittaśramāpahaḥ |

vaśyādisiddhido vṛṣyaḥ kaṣāyaśca rasāyanaḥ ||rā.ni.

**Adverse effects:** No known adverse effect is reported after the normal use of Bandaka

### **Research articles related to *Dendrophthoe falcata*:**

Neuro - behavioral toxicity: The aim of the present study was to evaluate the neurobehavioral toxicity of the hydroalcoholic extract from *D. falcata* growing on the host plant *Azadirachta indica*, after subacute exposure. The LD<sub>50</sub> was assessed in female wistar rats and was found to be 4550mg/kg by oral route. The plant extract was administered in three different doses i.e. 250mg/kg, 475mg/kg and 950mg/kg body weight/day for a period of four weeks. Our results suggest that hydroalcoholic extracts from aerial parts of *D. falcata* should be relatively free from any serious neurobehavioral toxicity and safe to use.

Anti - inflammatory study: Methanolic and aqueous extracts of *Dendrophthoe falcata* Linn. leaves which belongs to the Loranthaceae family, were evaluated through DPPH (1, 1 - diphenyl - 2 - picryl - hydrazyl), antilipid peroxidation and nitric oxide scavenging methods to assess the antioxidant activity. Methanolic and aqueous extracts of *Dendrophthoe falcata* leaves were also evaluated for their anti - inflammatory activity by carrageenan and cotton pellet induced granuloma tests for their effect on the acute and chronic phase inflammation models in rats. It was found that the methanolic

extract of *Dendrophthoe falcata* leaves demonstrates potent antioxidant activity as compared to aqueous extraction of *Dendrophthoe falcata* leaves for DPPH (1, 1 - diphenyl - 2 - picryl - hydrazyl) radical scavenging, anti - lipid peroxidation and nitric oxide scavenging activity respectively (having IC<sub>50</sub> value 77.8, 79.36 and 86.2, 144, 87, 104).

The objective of the present study is to explore the anticancer activity of the ethanolic and aqueous extracts of the *Dendrophthoe falcata* in Swiss albino mice against Ehrlich Ascites Carcinoma (EAC) cell line. Anticancer activity of ethanolic and aqueous extracts of *D. falcata* was evaluated in EAC Swiss albino mice at the doses of 200 and 400 mg/kg body weight orally. The results demonstrated that the extract has potent dose dependent anticancer activity comparable to that of cisplatin. Aqueous extract at both doses (200 and 400 mg/kg) and ethanolic extract at 400 mg/kg dose showed potent anticancer activity.

**Contraceptive action:** This study evaluated the antifertility effects of a methanolic extract of *Dendrophthoe falcata* stem in male albino rats. Testicular sperm count, epididymal sperm count, and sperm motility were observed to significantly decline ( $p < 0.001$ ), resulting in reduction of male fertility by 100 percent as compared with that of control animals not treated with the plant extract. The extract arrested spermatogenesis at



various stages of development. The results suggest that oral administration of crude methanol extract of *D. falcata* stem can lead to a sterile state in the male rat.

**Classical categorization:**

Dhanvantari Nighantu - Karaveeradi varga

Bhavaprakasha - Guduchyadi varga

Raja Nighantu - Parpatadi varga

**Scientific classification**

Kingdom: Plantae

Order: Santalales

Family: Loranthaceae

Genus: Dendrophthoe

Species: *D. falcata*

## **96. Snuhi Sehund: Euphorbia neriifolia Uses, Side effects, Research**

Snuhi - Euphorbia neriifolia, also called Sehund, is an Ayurvedic herb used for the treatment of swelling, for purgation, cough, rhinitis and piles.

Latin name - Euphorbia neriifolia Linn.

Family - Euphorbiaceae

### **Names in different languages:**

Hindi name - Sehund, Danda thukar

English name - Common milk hedge

Arabic name - Jakum

Kannada name - Male kalli

Marathi name - Thor

Malayalam name - Illa kalli

Punjabi name - Thor

Telugu name - Akujemuddu

Tamil name - Ilaikalli



### **Morphology of Euphorbia neriifolia:**

It is a small tree or big shrub growing to a height of 10 - 20 feet in dry regions of India. The genus has over or about 2,000 members. The trunk and the branches are modified into round or irregular shape. The leaves are shrunk into spikes, fleshy in nature. Flowers when viewed as a whole, looks like a single flower. It has a unique kind of pseudanthium, called a cyathium, where each flower in the head is reduced to its barest essential part needed for sexual reproduction. These flowers have no sepals, petals, or other parts that are typical of flowers in other kinds of plants. The fruits are 0.5 inch long. Flowers and fruits are seen in the spring season.

### **Snoohi medicinal properties:**

Rasa (Taste) - Katu (Pungent)

Guna (Qualities) - Laghu (Light for digestion), Teekshna

(Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Root, Leaf, Milky latex

**Dosage** -

Root powder - 0.5 to 1 g

Stem juice - 5 to 10 ml

Milky latex - 125 - 250 mg



**Chemical composition of Euphorbia neriifolia:**

The triterpenoids, euphol, 24 - methylene cycloartenol, euphorbol hexacosonate, glut - 5 (10) - en - 5 - one, glut - 1 - en - 3 beta - yet - acetate, taraxerol, friedelan - 3 alpha - ol and - 3 beta - ol have been reported from the plant.

वज्रकण्टः कटुस्तिकस्तीक्ष्णोष्णो दीपनो गुरुः ॥

रेचनोऽनिलशूलामकफगुल्मोदरापहा ।

उन्मादमेहकुष्ठार्शःशोथमेदोऽश्म पाण्डुताः ॥

व्रणाध्मानज्वरप्लीहविषं दूषीविषं हरेत् ।

उष्णवीर्यं स्नुहीक्षीरं स्निग्धं सकटुकं लघु ॥

गुल्मिनां कुष्ठिनां वापि तथैवोदररोगिणाम् ।

श्रेष्ठमेतद् विरेकार्थं ये चान्ये दीर्घरोगिणः ॥कै.नि.

निहुडिङ्गो रसे तिको गुरुष्णः कफवातजित् ।

दुष्टव्रणाश्मरीं हन्ति तथा वातविशोधनः ॥

स्नुहीक्षीरं विषाध्मानगुल्मोदरहरं पराम् ।

स्नुही रसेषु तिका च गुरुष्णा कफवातजित् ॥ध.नि.

सीहुण्डो रेचनस्तीक्ष्णो दीपनः कटुको गुरुः ।

शूलमष्ठीलिकाध्मानकफगुल्मोदरानिलान् ॥

उन्मादमोहकुष्ठार्शः शोथमेदोऽश्मपाण्डुताः ।

व्रणशोथज्वरप्लीहविषदूषीविषं हरेत् ॥

उष्णवीर्यं स्नुहीक्षीरं स्निग्धञ्च कटुकं लघु ।

गुल्मिनां कुष्ठिनाञ्चापि तथैवोदररोगिणाम् ।

हितमेतद्विरेकार्थं ये चान्ये दीर्घरोगिणः ॥

सेहुण्डभेद - शातला सप्तला सारा विमला विदुला च सा ।

तथा निगदिता भूरिफेना चर्मकषेत्यपि ॥

शातला कटुका पाके वातला शीतला लघुः ।

तिक्ता शोथकफानाहपित्तोदावर्तरक्तजित् ॥ भा.प्र

स्नुही सुधा महावृक्षः क्षीरी निस्त्रिंशत्पत्रिका ।

स्नुहीरुष्णा पित्तदाहकुष्ठवातप्रमेहनुत् ।

क्षीरं वातविषाध्मानगुल्मोदरहरं परम् ॥

स्नुहीरान्या त्रिधारा स्यात्तिस्रो धारास्तु यत्र सा ।

पूर्वोक्तगुणवत्येषा विशेषाद्रससिद्धिदा ॥रा.नि.

स्नुही साष्ठोलिकाध्मानगुल्मोदरहरा सरा ॥

सुधापयः प्रयोक्तव्यं दोषवत्स्वग्निसन्निभम् ।

दूषी विषोदरप्लीहगुल्मकुष्ठप्रमेहिषु ॥ सो.नि

vajrakaṇṭhaḥ kaṭustiktastīkṣṇoṣṇo dīpano guruḥ ॥

recano'nīlāśūlāmakaphagulmodarāpahā ।

unmādamehakuṣṭhārśaḥśothamedo'sma pāṇḍutāḥ ॥

vraṇādhmānajvarapliḥaviṣaṃ dūṣīviṣaṃ haret ।

uṣṇavīryaṃ snuhīkṣīraṃ snigdhaṃ sakaṭukaṃ laghu ॥

gulmināṃ kuṣṭhināṃ vāpi tathavodararoginām ।

śreṣṭhametad virekārthe ye cānye dīrgharogīṇaḥ ||kai.ni.  
 niḥuḍiṅgo rase tikto gurūṣṇaḥ kaphavātajit |  
 duṣṭhavraṇāśmarīm hanti tathā vātaviśodhanaḥ ||  
 snuhīkṣīraṃ viśādhmānagulmodaraharam parām |  
 snuhī raseṣu tiktā ca guruṣṇā kaphavātajit ||dha.ni.  
 sīhuṅḍo recanastīkṣṇo dīpanaḥ kaṭuko guruḥ |  
 śūlamaṣṭhīlikādhmānakaphagulmodarānilān ||  
 unmādamohakuṣṭhārśaḥ śothamedo'śmapāṇḍutāḥ |  
 vraṇaśothajvaraplīhaviśadūṣīviṣaṃ haret ||  
 uṣṇavīryaṃ snuhīkṣīraṃ snigdhañca kaṭukaṃ laghu |  
 gulminām kuṣṭhināñcāpi tathavodararogīṇām |  
 hitametadvirekārthaṃ ye cānye dīrgharogīṇaḥ ||  
 sehuṅḍabheda - śātalā saptalā sārā vimalā vidulā ca sā |  
 tathā nigaditā bhūriphenā carmakāṣetyapi ||  
 śātalā kaṭukā pāke vātalā śītalā laghuḥ |  
 tiktā śothakaphānāhapittodāvartaraktaḥ || Bhavaprakasha  
 snuhī sudhā mahāvṛkṣaḥ kṣīrī nistriṃśapatrikā |  
 snuhīruṣṇā pittadāhakuṣṭhavātapramehanut |  
 kṣīraṃ vātaviśādhmānagulmodaraharam param ||  
 snuhīrānyā tridhārā syāttisro dhārāstu yatra sā |  
 pūrvoktaguṇavatyeṣā viśeṣādrasasiddhidā ||rā.ni.  
 snuhī sāṣṭholikādhmānagulmodaraharā sarā ||  
 sudhāpayāḥ prayoktavyaṃ doṣavatsvagnisannibham |  
 dūṣī viśodaraplīhagulmakuṣṭhapramehiṣu || so.ni

## **Uses of Snuhi:**

- The leaf of Snuhi is heated and tied over the area affected with pain and inflammation.
- The fresh juice from the leaf is poured inside the ears to treat earache.
- Oil processed from the leaf of Snuhi and sesame oil is used for external application to treat joint pain.
- The fresh milk latex of *Euphorbia neriifolia* is applied over external pile mass to reduce it.
- Milk latex is used in the preparation of 'Kshara sutra', a medicated thread useful to treat piles and fistula.
- Juice from fresh stem of Snuhi is added with honey and borax to treat cough and sore throat.
- The milk latex of *Euphorbia neriifolia* is applied over warts as part of treatment.
- The milk latex can cause purgation; hence it is used for cleansing the abdomen in cases of poisoning and in severe constipation.
- The paste of the leaf of Snuhi is applied over the skin to treat skin diseases.

## **Traditional uses of Sehund as per Ayurveda:**

Deepana - improves digestion strength

Rechana - induces severe purgation



Anilapaha - Vatahara - useful in treating disorders of Vata  
Dosha imbalance such as neuralgia, paralysis, constipation,  
bloating, etc

Snigdha - unctuous, oily

Laghu - light to digest

**Indicated in -**

Shoola - abdominal colic pain

Ama - A product of indigestion and altered metabolism

Kaphaja gulma - tumor of Kapha origin

Udara - ascites, enlargement of the abdomen

Unmada - Schizophrenia

Meha - diabetes, urinary tract disorders

Kushta - skin diseases

Arsha - haemorrhoids

Shotha - Swelling, inflammation

Meda - obesity, high cholesterol

Ashmari - Kidney and bladder stones

Pandu - anemia

Vrana - Ulcers, wounds

Adhmana - bloating, gaseous distension of abdomen

Jwara - fever

Pleeha - Disease of the spleen, Splenomegaly

Visha - Toxic conditions, poisoning

Dooshivisha - chronic poisoning

Dushta Vrana - infected wound

Snuhi variety, called Shatala, with synonyms Saptala, Sara, Vimala, Vidula yields profuse latex with frothing. It is Katu - pungent

Tikta - bitter

Indicated in

Shotha - Swelling, inflammation

Kapha Anaha - bloating, fullness

Udavarta - bloating

Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

### **Side effects of Snuhi:**

Excess use of Snuhi can cause severe purgation and if the milk of the plant falls to the eye, it can cause blindness. Hence Snuhi should be used always under medical supervision.

### **Ayurvedic medicines containing Snuhi:**

[Agnivrana Taila:](#) It is an Ayurvedic medicated oil used for the treatment of burns, boils, prevention of the blisters etc.

[Ayaskirti:](#) It is an Ayurvedic medicine used for the treatment of anemia, weight loss therapy, skin diseases, irritable bowel syndrome etc.

Vishatinduka taila: It is an Ayurvedic medicine used for the treatment of Gout, numbness, skin diseases with discoloration. The oil is applied externally.

Abhaya lavana: It is an Ayurvedic medicine, used in the treatment of liver and spleen disorders. It is in powder form.

Madhusnuhi rasayana: It is a formulation used in the treatment of skin diseases like eczema, psoriasis, diabetic carbuncles, fistula, piles, tumors, goiter, itching, **rheumatoid arthritis** and non - healing wounds.

Ardraka ghrita: It is a medicine in ghee form and is useful to treat indigestion, chronic diarrhea, gastritis etc.

Arsha kutara rasa: It is an Ayurvedic medicine in tablet form. It is used in the treatment of hemorrhoids.

Jalodarari rasa: It is an Ayurvedic medicine used in the treatment of ascites and hepatic disorders.

Shanka dravaka: It is an Ayurvedic medicine used for the treatment of ascites, indigestion, diseases of the liver and

spleen.



### **Research articles related to Euphorbia neriifolia:**

[Anti - microbial study:](#) The phytochemical analysis of leaf extracts (chloroform, ethanol, ethyl acetate, butanol and aqueous) of a medicinal plant, Euphorbia neriifolia and their antibacterial activities against bacterial isolates, Staphylococcus aureus, Klebsilla pneumonia, Escherichia coli, Proteus vulgaris, Pseudomonas fluorescens were investigated. the presence of flavonoids, phlobatannins, saponin, tannins, cardenoloids, phenol, terpenoids. The maximum activity was observed in chloroform extract against P. vulgaris with zone of inhibition (8 mm), followed by ethanol extract against K. pneumonia (5 mm). This research supports the local use of the leaf of the

plant, *E. neeriifolia* for wound healing property and other forms of bacterial infections.

Protective action on induced thrombosis: The present work was designed study antithrombotic potential of *E. neriiifolia* Linn. Carrageenan - induced rat tail thrombosis model was used to study the anti - thrombotic effect by measuring thrombosis of tail and bleeding time as well as clotting time. In the present work, phyto - constituents like flavonoids and polyphenols could be responsible to demonstrate protective effect on experimentally induced thrombosis in murine model.

Wound healing activity: The wound healing effect of aqueous extract of the latex of *Euphorbia neriifolia* was evaluated in guinea pig. Surgically produced cutaneous wounds were treated with topical application of 0.5% and 1 .0% sterile aqueous solution of the extract. The extract facilitated the healing process as evidenced by increase in tensile strength, DNA content, epithelization and angiogenesis.

### Antioxidant

action: The antioxidant activity of EN extract was evaluated by various antioxidant assays such as TAC, FRAP, FTC, TBA and non specific activity. All these antioxidant activities were compared with standard antioxidants. Phytochemical screening and the total phenolics, flavonols and

proanthocyanidin content were also determined. A positive correlation between the antioxidant activities and physiochemical assays was observed and the highest scavenging activity of extract was noticed at concentration of 1mg/ml.

### **Classical categorization:**

Dhanvantari Nighantu - Guduchyadi varga

Bhavaprakasha - Guduchyadi varga

Raja Nighantu - Shalmalyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Shodala Nighantu - Guduchyadi varga

### **Botanical classification:**

Kingdom: Plantae

Order: Malpighiales

Family: Euphorbiaceae

Subfamily: Euphorbioideae

Tribe: Euphorbieae

Subtribe: Euphorbiinae

Griseb.

Genus: Euphorbia N.

### **Sanskrit Synonyms of Snuhi:**

Sudha - Has white colored latex

Samanth dugdha - Has milk all over the body

Vajradruma, Vajrakantaka, Kulisha Druma, Vajravruksha,

Vajratunda, Vajri - It has strong action like diamond, branches are diamond shaped in cross section

Nistrisha patra - The structure is sharp like sword

Mahavriksha - The shrub grows to a good height

Vatari - balances Vata Dosha.

Ksheerakanda, Bahushrava - Yields profuse latex

Vyaghranakha, Guda, Gudakhya, Gandeera, Sehunda, Snuk, Snuhi, Sihunda, Nihunga, Simhatunda, Shakhakhandanda,

Bahushakha - multiple branches

Dandavruksha - branches are like log of woods

## **97. Kampillaka: Mallotus philippensis Uses, Research, Remedies**

Kampillaka - Mallotus philippensis is a herb mentioned in Ayurveda for the treatment of skin diseases, wound and intestinal worm.

Latin name - Mallotus philippensis Muell Arg.

Family - Euphorbiaceae

### **Names in different languages:**

Hindi name - Kabila

English name - Kamala, Monkey face tree

Arabic name: Kambil

Assamese name: Lokhan

Gujarati name: Kamilo

Kannada name: Kunkundamar, Chandranettu, Kapila

Kashmiri name: Kammelak

Malayalam name: Kurmadakku, Kampippala

Marathi name: Shendari, Kapila

Oriya name: Kapilogendi

Tamil name: Kungumam

Telugu name: Kunkum



Urdu: Kamila



**Sanskrit Synonyms:**

Raktanga, Raktachurnaka, Ranjaka, Lohitanga - The fruit is red in color

Karkash - The fruit is rough outside

Rechi, Rechanaka, Vireki - Cause purgation

Rakta Samana, Varnashodhana,

**Morphology of Mallotus philippensis:**

Kampillaka is a medium size tree growing to a height of 20 - 25meter and found all over India up to an altitude of 5000 feet. The bark of the tree is brown outside and reddish inside. The leaves are 3 - 5 inch long, little round to long in shape with hair like structures on the lower surface, whereas the upper surface is smooth. The flowers are unisexual, pale yellow and are found in the month of August - September. The fruits are round, 0.5 inch in diameter and covered with red hair like

structures. These hair like structures are collected and used as medicine. Fruits are seen in the month of March - May. The seeds are round, black and slimy in nature.



### **Test for purity of Kampillaka:**

Brick powder is used as adulterant for Kampillaka. Hence to check the quality, the following test can be done -

- The hair of the fruit is put in a bowl of water. The hairs float in water whereas the brick powder sink in the water.
- If the hair of the fruit is rubbed over a white paper, it gives a yellow line.
- If the hair of the fruit is sprinkled over fire, it gives a crackling appearance.



### **Medicinal properties of kampillak:**

Rasa (Taste) - Katu (Pungent)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphavata shamaka (reduces vitiated kapha and vata dosha)

**Part used** - Glands and hair of fruit

### **Dosage -**

Hair of fruit - 1 - 2 g

### **Kampillaka Shodhana (purification):**

Kampillak, being the fruit skin powder is very light in nature. It is put into water. All the impurities will settle down while the Kampillaka floats. The floating particles are collected, dried and preserved.

### **Chemical composition:**

The most important active constituent is a brownish red or reddish yellow color called Rottlerin. Capsule hair and glands gave phloroglucinol derivatives; rottlerin, isorottlerin, isoallorottlerin (the "red compound") and methylene - bis - methyl - phloroacetophenone (the "yellow compound"). Two more compounds designated as kamalins 1 and 2 have been isolated. The stem bark contains kamaladiol - 3 - acetate and friedelin.



### **Uses of Kampillaka:**

- The hair of the fruit of Kampillaka is mixed with sesame oil and applied over the skin affected with eczema and wound as part of treatment.

- Mallotus philippinensis fruit gland is used for the treatment of intestinal worms by mixing it with hot water and consuming.
- Decoction of the fruit hair is giving in a dose of 30 - 40 ml to retain the fetus in pregnancy condition.
- Cold infusion of the bark is given in a dose of 40 - 50 ml to treat renal calculi and in retention of urine.
- Decoction of the bark of Mallotus philippinensis is given in a dose of 30 ml to treat skin diseases like eczema and acts like a blood purifier.

कम्पिल्लकोऽथ रक्ताङ्गो रेची रेचनकस्तथा ।

रञ्जनो लोहिताङ्गश्च कम्पिल्लो रक्तचूर्णकः ॥

कम्पिल्लको विरेची स्यात्कटुष्णो व्रणनाशनः ।

गुल्मोदरविबन्धाध्मश्लेष्मकृमिविनाशनः ॥ ध.नि.

कम्पिल्लकोऽथ रक्ताङ्गो रेची रेचकस्तथा ।

रञ्जको लोहिताङ्गश्च कम्पिल्लो रक्तचूर्णकः ॥

कम्पिल्लको विरेची स्यात्कटुष्णो व्रणनाशनः ।

कफकासार्तिहारी च जन्तुक्रिमिहरो लघुः ॥रा.नि.

ईष्टिकाचूर्णसङ्काशश्चन्द्रिकाद्योऽतिरेचनः ।

सौराष्ट्रदेशे चोत्पन्नः स हि कम्पिल्लकः स्मृतः ॥

(र.र.स.३/१२२)

पित्तव्रणाध्मानविबन्धहारी श्लेष्मोदरार्तिकृमिगुल्महारी ।

मूलामशोफज्वरशूलहारी कम्पिल्लको रेच्यगदापहारी ॥

(र.र.स.३/१२३)

kampillako'tha raktāṅgo recī recanakastathā |  
rañjano lohitāṅgaśca kampillo raktacūrṇakaḥ ||  
kampillako virecī syātkaṭuṣṇo vraṇanāśanaḥ |  
gulmodaravibandhādhmaśleṣmakṛmivināśanaḥ || dha.ni.

kampillako'tha raktāṅgo recī recakastathā |  
rañjako lohitāṅgaśca kampillo raktacūrṇakaḥ ||  
kampillako virecī syātkaṭuṣṇo vraṇanāśanaḥ |  
kaphakāsārtihārī ca jantukrimiharo laghuḥ ||rā.ni.

īṣṭikācūrṇasaḍkāśaścandrikāḍhyo'tirecanaḥ |  
saurāṣṭradeśe cotpannaḥ sa hi kampillakaḥ smṛtaḥ ||

(ra.ra.sa.3/122)

pittavraṇādhmānavibandhahārī śleṣmodarārtikṛmigulmahārī |  
mūlāmaśophajvaraśūlahārī kampillako recyagadāpahārī ||

(ra.ra.sa.3/123)

## **Traditional indications of Kampillaka:**

Vrana - Ulcers, wounds

Gulma - Tumors of the abdomen

Udara - ascites, enlargement of the abdomen

Vibandha - constipation

Adhmana - bloating, gaseous distension of abdomen

Shleshma krumi - parasites of Kapha origin

Kaphajakasa - cough of Kapha origin

Pitta Vrana - Ulcers, wounds

Ama - A product of indigestion and altered metabolism

Shopha - inflammation

Jwara - fever

Shoola - abdominal colic pain

**Adverse effects:** Increased dose of Kampillaka can cause purgation and excessive salivation. Hence the herb should be used with caution.

## **Ayurvedic medicines containing Kampillaka:**

**Mishraka sneha:** It is an Ayurvedic medicine, in herbal ghee form. This medicine has ghee as its base. It is used for preparatory procedure for Panchakarma and also as medicine, used in the treatment of abscess, Vata diseases etc.

**Krimighatini vati:** It is an Ayurvedic medicine used in the treatment of intestinal worm infestation, vomiting sensation, inflammatory conditions etc.

Dhanvantara ghrita: It is an Ayurvedic medicine, in herbal ghee form. It is used for the treatment of edema, abscess, hemorrhoids, anemia, toxic conditions, diabetes, diabetic carbuncle, Gout, spleen related diseases, skin and psychotic diseases.

Jivantyadi yamaka: It is an Ayurvedic medicine used for the treatment of various skin ailments - eczema, psoriasis, contact dermatitis, hives and allergic rashes etc.

Vidangadi churna: It is a powder used in treatment of intestinal worms (helminthiasis), anorexia and abdominal pain.

Bala kalpam syrup: It is a proprietary Ayurvedic medicine used for improving liver function and digestive power in children. It is also used to treat cold, bronchitis, nausea, vomiting and infantile regurgitation.

### **Research articles related to Mallotus philippensis:**

Anti - oxidant activity: Phenolic compounds were extracted from Mallotus philippinensis bark using methanol. The content of total phenolics in the fractions ranged from 54 mg/g (fraction I) to 927 mg/g (fraction VI). Condensed tannins were detected in fractions II - VI. Total antioxidant activity (TAA) of phenolic fractions of Mallotus philippinensis bark extract ranged from 0.58 mmol Trolox/g (fraction I) to 6.82 mmol Trolox/g (fraction IV). Fraction IV also showed the strongest antiradical activity against DPPH and reducing power.



**Anti - fungal action:** From the red coloured extract (Kamala) prepared through acetone extraction of the fresh whole uncrushed fruits of *Mallotus philippinensis*, one new dimeric chalcone (**1**) along with three known compounds 1 - (5,7 - dihydroxy - 2,2,6 - trimethyl - 2H - 1 - benzopyran - 8 - yl) - 3 - phenyl - 2 - propen - 1 - one (**2**), rottlerin (**3**) and 4' - hydroxyrottlerin (**4**) were isolated. Compounds **1** - **4** were evaluated for antifungal activity against different human pathogenic yeasts and filamentous fungi. The antiproliferative activity of the compounds was evaluated against Thp - 1 cell lines. Compounds **1** and **2** both exhibited IC<sub>50</sub> of 8, 4 and 16 µg/mL against *Cryptococcus neoformans* PRL518, *C. neoformans* ATCC32045 and *Aspergillus fumigatus*, respectively.

**Anti - diabetic action:** In the present work the antidiabetic activity of the *Mallotus philippinensis* was evaluated. The hydro ethanolic bark extract showed significant increase in the levels of body weight, insulin and significant decrease in blood glucose, and glycosylated haemoglobin when administered orally for 30 days to STZ induced diabetic rats at a dose of 200 and 400 mg/kg body weight.

### **Classical categorization:**

Dhanvantari Nighantu - Chandanadi varga

Raja Nighantu - Suvarnadi varga

Rasa Ratna Samucchaya - Sadharana Rasa

## **98. Putrajivaka: Putranjiva roxburghii Uses, Remedies, Research**

Putranjivaka - Putranjiva roxburghii is an Ayurvedic Herb used for the for the treatment of eye disorders, burning sensation, elephantiasis, difficulty in micturition, azoospermia and habitual abortions. The name Putranjivaka denotes - which promotes or give life to progeny, which promotes fertility, both in men and women.

Latin name - Putranjiva roxburghii Wall.

Family - Euphorbiaceae

### **Putrajeevak Names in different languages:**

Hindi name - Jiyapeeta, Putranjeev

English name - Child life tree, Indian amulet plant

Gujarathi name - Putrajiva, Putramjeeva, Putranjiv,

Kannada name - Putrajiva, Putramjiva

Malayalam name - Pongalam

Marathi name - Putajan

Tamil name - Irukolli

Telugu name - Kuduru, Putrajivika



### **Synonyms of Putrajeevak:**

Garbhakar, Garbhada, Sutajeevaka - Which strengthens the uterus and retains the fetus

Yashtipushpa - flowers resemble licorice

Artha Sadhaka, Mantraritha Siddhikrut - used for spiritual purposes

Kuta, Pavitra - Sacred

### **Morphology of Putranjiva roxburghii:**

Putrajivaka is a moderate sized evergreen tree growing to a height up to 12m with pendent branches and dark grey bark having horizontal lenticels. The leaves are simple, alternate, distichous, stipule triangular, acute, caduceus, petiole 0.4 - 1 cm long, nearly glabrous, planoconvex in cross section. The flowers are unisexual, male flowers in axillary clusters and yellow in color.

Flowers bloom in the month of March and April. The fruits are round or ovoid in shape, 0.5 - 0.8 inch diameter. The seed present inside is solitary and slimy. Fruits are seen in between January to March. The tree can be seen all over India till 3000 feet altitude.



### **Medicinal properties of Puntraajiva:**

Rasa (Taste) - Madhura (Sweet), Katu (Pungent),

Guna (Qualities) - Guru (Heavy), Picchila (Slimy)

Vipaka - Madhura (Undergoes sweet taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Vatapitta shamaka (reduces vitiated vata and pitta dosha)

**Part used** - Seed, Leaf

**Dosage** -

Seed powder - 1 to 3 g

Leaf juice - 10 to 20 ml



### **Chemical composition of Putranjiv:**

The oil extracted from seed contains isopropyl and 2 - butylisothio - cyanates as the main constituents and 2 - methyl - butyl isothiocyanate as a minor component. The iso - thiocyanates are produced on enzymic hydrolysis of glycosidic progenitors present in the kernels, viz. gluco putranjivin, gluco - cochlearin and gluco jiaputin respectively. An additional glucoside, gluco - cleomin has been identified in the seed kernel. A glycosidic pattern similar to that in the seed is reported in the shoots and roots. The fruit pulp contains a large portion of mannitol and small quantities of saponin glucosides and alkaloids. The seed coat gave putranjivoside, putranoside

A, B, C and D, beta - sitosterol and tis beta - D - glucoside. The leaves have amentoflavone and its derivatives, beta - amyrrin and its palmitate, polyphenols, putranjiva saponin A,B,C, and D and stigmasterol. The bark contains friedelin, friedelanol, friedelanone, friedelan - 3,7 - di - one (putranjivadione), 3 - alpha - hydro - xyfriedelan - 7 - one (roxburgholone), carboxylic acid, putric acid, putranjivic acid.

पुत्रञ्जीवो यष्टिपुष्पा कूटो मन्त्रार्थसिद्धिकृत् ।

पुत्रजीवो हिमो रूक्षो वृष्यः स्वादुपटुर्गुरुः ॥

विष्टम्भी सृष्टविण्मूत्रो गर्भवातकफप्रदः । कै.नि.

पुत्रजीवो गर्भकरो यष्टीपुष्पोऽर्थसाधकः ।

पुत्रजीवो गुरुर्वृष्यो गर्भदः श्लेष्मवातहृत् ।

सृष्टमूत्रमलो रूक्षो हिमः स्वादुः पटुः कटुः ॥ भा.प्र.

पुत्रजीवः पवित्रश्च गर्भदः सुतजीवकः ।

कुटजीवोऽपत्यजीवः सिद्धिदोऽपत्यजीवकः ॥

पुत्रजीवो हिमो वृष्यः श्लेष्मदो गर्भजीवकः ।

चक्षुष्यः पित्तशमनो दाहतृष्णानिवारणः ॥ रा.नि.

putrañjīvo yaṣṭipuṣpā kūṭo mantrārthasiddhikṛt |

putrajīvo himo rūkṣo vṛṣyaḥ svādupaṭurguruḥ ||

viṣṭambhī sṛṣṭaviṇmūtro garbhavātakaphapradah | kai.ni.

putrajīvo garbhakaro yaṣṭīpuṣpo'rthasādhakaḥ |  
putrajīvo gururvṛṣyo garbhadaḥ śleṣmavātaḥṛt |  
sr̥ṣṭamūtramalo rūkṣo himaḥ svāduḥ paṭuḥ kaṭuḥ ||

Bhavaprakasha.

putrajīvaḥ pavitraśca garbhadaḥ sutajīvakaḥ |  
kuṭajīvo'patyajīvaḥ siddhido'patyajīvakaḥ ||  
putrajīvo himo vṛṣyaḥ śleṣmado garbhajīvakaḥ |  
cakṣuṣyaḥ pittaśamano dāhatṛṣṇānivāraṇaḥ ||rā.ni.

### **Uses of Putranjivaka:**

- Ayurvedic classics have highlighted the importance of Putranjivaka as the one which helps in progeneration. The powder of the seed is given in a dose of 1 - 3 g with milk to improve the sperm count in males and help in maintain the fetus in pregnant women.
- The paste of the leaf is applied over the area affected with burning sensation.
- Fresh juice of Putranjivaka is given in a dose of 10 - 15 ml to treat elephantiasis and the paste of the leaf is applied over the affected leg.
- Cold infusion prepared from the leaves of Putranjivaka roxburghii is given in a dose of 20 - 30 ml to treat difficulty in micturition.

- The seeds of the seed of Putranjivaka is made into paste and applied as collyrium to treat eye diseases.

### **Traditional uses:**

Vrushya - aphrodisiac, improves vigor

Guru - heavy to digest

Vishtambhi - constipative.

Srushtavinmutra - causes production of urine and feces

Hima - coolant

Kaphavata prada - can increase Kapha and Vata Dosha

Pittashamana - balances Pitta Dosha

Dahahara - Relieves burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Trushnahara - Relieves thirst

**Adverse effects:** No adverse effect is known or reported after the normal use of Putranjivaka.

### **Ayurvedic Medicines containing Putranjivaka:**

Lucap capsule: This is a proprietary ayurvedic medicine useful to treat dysmenorrhea, iron deficiency anemia, vaginitis and menorrhagia and corrects post - partum disorders.

### **Research articles related to Putranjiva roxburghii:**

Hypoglycemic activity: In the present study diabetes was induced in albino rat models with alloxan monohydrate. Putranjiva roxburghii Wall. has been claimed to possess antidiabetic properties by many of leaves of Putranjiva



roxburghii. The results showed that it has significant antihyperglycemic effect in experimental model of diabetes mellitus.

**Anti - bacterial and Anti - oxidant activity:** For antibacterial activity the methanolic extracts of 12 plants leaves were extracted. The antibacterial testing in vitro was done following disc diffusion method against *Bacillus subtilis*, *Erwinia herbicola*, *Escherichia coli*, *Salmonella typhi*, *Pseudomonas putida*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Vibrio cholera*. Amongst the leaf methanolic extracts tested, the extracts of *Aegle marmelos* (L.) Corre, *Anethum graveolens* L and *Eupatorium capillifolium* (Lam.) Small showed significant antibacterial activity against the bacterial pathogen. *Putranjiva roxburghii* Wall showed highest antibacterial activity followed by *Artabotrys hexapetalus* (L.f.) Bhandari. The 2, 2 - diphenyl - 1 - picrylhydrazyl (DPPH) radical scavenging assay was used to determine the antioxidant activity of potent extract. *Putranjiva roxburghii* Wall showed the appreciable antioxidant activity.

**Cytotoxic action:** The present study was designed to investigate the cytotoxicity of methanol extract of seeds of *Putranjiva roxburghii* Wall (Euphorbiaceae). The preliminary phytochemical screening of methanol extract showed the presence of phenols, alkaloids, saponins, steroids, flavonoids

and glycosides. The extract showed cytotoxicity with LC<sub>50</sub> of 427.74 µg/ml in brine shrimp lethality assay.

**Classical categorization:**

Bhavaprakasha Nighantu - Vatadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Prabadradi varga

**Scientific classification**

Kingdom: Plantae

Order: Malpighiales

Family: Putranjivaceae

Genus: Putranjiva Wall.

## **99. Bhumyamalaki: Phyllanthus niruri Uses, Research, Remedies, Side Effects**

Bhumyamalaki - Phyllanthus niruri is an important liver protecting Ayurvedic herb and an ingredient of Chyawanprash. It is used for the treatment of fever, inflammation of spleen and liver, fractures, fever, jaundice and skin diseases.

Latin name - Phyllanthus niruri Linn., Phyllanthus amarus

Family - Euphorbiaceae



### **Morphology of Phyllanthus niruri:**

Bhui Amla is a weed that grows around 2 feet tall and has small leaves. These leaves are alternate and arranged in 2 rows. They are membranous and unusually thin with a glaucous under its surface. They are elliptical in shape and have a narrow base with 2 stipules. The flowers of the plant are small monoecious and are found in pairs. It bears herbaceous

branches and the light green bark is smooth to touch. The plant has pale green colored flowers that are often flushed with red color tone. The bark is smooth and light green. The fruits are tiny, smooth capsules containing seeds. The plant is found all over Coastal India in the temperate climate.



**Medicinal properties of Bhumyamlaki:**

Rasa (Taste) - Tikta (Bitter), Kashaya (Astringent), Madhura (Sweet)

Guna (Qualities) - Laghu (Light for digestion), Ruksha (Dry in nature)

Vipaka - Madhura (Undergoes sweet taste after digestion)

Veerya (Potency) - Sheeta (Cold)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha)

**Part used** - Whole plant

**Dosage** -

Leaf juice - 10 to 20 ml

Powder - 3 to 6 g



### **Morphology of Argemone mexicana:**

Swarnakshiri is a small plant growing to a height of 2 - 3 feet, bushy with thorns and is seen in the dry regions of India. The plant gives yellow colored milky latex when cut. The leaves are long with small thorns and white lines. The flowers are yellow colored, 2 - 3 inch in diameter. The fruits are small with black colored seeds inside. The plant is a native to Mexico and America.

### **Chemical composition of Phyllanthus niruri:**

The plant consist many of the active constituents that are attributed to biologically active ligans, glycosides, flavanoids, alkaloids, ellagitans, phenyle proponoids, amarin, gernanin, corilagin found in the leaves, stem and root of the plant. Common lipids, sterols and flavanoids also occur in the plant.

Niranthin nirtetralin phyltetralin is isolated from leaves.  
Kaemferol - 4 rhamnopyranocytose and ciceritol - 7  
rhamnopyranoside, lup 20 (29) - en - 3 beta - ol and its  
acetates are extracted from roots.

### **Uses of Bhumyalaki:**

- The paste of the leaf of Bhumymlaki is applied over the skin to treat skin infection.
- The paste of the whole plant of Phyllanthus niruri is applied with rock salt over the area affected with pain, swelling in cases of fracture.
- The root of the plant is made into paste after rubbing with lime juice or rice gruel and applied as collyrium to treat diseases of the eye like conjunctivitis, blephritis.
- The fresh juice of the leaf of Bhumymlaki is given in a dose of 15 - 20 ml in empty stomach in the morning to treat indigestion, hyperacidity and jaundice.
- The juice of the whole plant is given in a dose of 15 ml to treat fever, hepatomegaly and splenomegaly.
- To treat case of cough and asthma, the juice of Phyllanthus niruri is used as nasal drops or taken internally with sugar candy.
- To treat typhoid, herbal tea prepared with fresh leaves of Bhumymlaki is consumed.

- Decoction of whole plant of Phyllanthus niruri is given in a dose of 30 ml as blood purifier and to treat skin infection.

Jaundice : - Bhumyاملaki paste with butter milk .

Pain in eye : - Bhumyاملaki paste with Rock salt and Sour gruel are rubbed n a copper vessal when solidified it applied as a paste on eyelid.

Prameha : - Bhumyاملaki (20gm) and Maricha 20 in number taken internally.

Haemorrhage : - Bhumyاملaki beeja with rice water in two weeks.

Pradara : - Bhumyاملaki root taken with rice water 2 - 3 days.

Oedema /swelling : - The leaves and root made in to kalka and taken with rice water

Chronic dysentry : - The young shoots of the plant are administererd in the form of an infusion.

Typhoid - Bhumyاملaki boil to make tea and used .

तामलकी हिमा तिका कषाया मधुरा लघुः ।

रोचनी पाण्डुपित्तास्रकफकुष्ठविषापहा ॥

जयेच्छ्वासतृषादाहहिध्माकासक्षतक्षयान् । कै.नि

भूधात्री मधुरा तिका वीर्यतः शिशिरा स्मृता ।

पित्तं हन्ति कफास्रघ्नी दृष्टिदाहविनाशिनी ॥ ध.नि.

भूधात्री वातकृत्तिका कषाया मधुरा हिमा ।

पिपासाकासपित्तास्रकफकण्डूक्षतापहा ॥ भा.प्र.

भूधात्री तु कषायाम्ला पित्तमेहविनाशनी ।

शिशिरा मूत्ररोगार्तिशमनी दाहनाशनी ॥ रा.नि

tāmalakī himā tiktā kaṣāyā madhurā laghuḥ |

rocanī pāṇḍupittāsrakaphakuṣṭhaviṣāpahā ||

jayecchvāsatrṣādāhahidhmākāsakṣatakṣayān | kai.ni

bhūdhātrī madhurā tiktā vīryataḥ śīśirā smṛtā |

pittaṃ hanti kaphāsragnī dr̥ṣṭidāhavināśinī || dha.ni.

bhūdhātrī vātakṛttiktā kaṣāyā madhurā himā |

pipāsākāsapittāsrakaphakaṇḍūkṣatāpahā || Bhavaprakasha.

bhūdhātrī tu kaṣāyāmlā pittamehavināśanī |

śīśirā mūtrarogārtisamanī dāhanāśanī || rā.ni

### **Bhumyamalki uses as per Ayurveda:**

Rochani - improves taste, useful in anorexia

Indicated in -

Pandu - anemia

Pittasra - Raktapitta - Bleeding disorders such as nasal bleeding, heavy periods, etc

Kaphaja Kushta - skin diseases

Visha - Toxic conditions, poisoning



Shwasa - asthma and chronic respiratory disorders

Trushna - excessive thirst

Daha - burning sensation, as in gastritis, neuropathy, burning sensation in eyes etc

Hidhma - hiccups

Kasa - cough, cold

Kshataksheena - wounded, injured

Pipasa - excess thirst, dry mouth

Pitta Meha - diabetes, urinary tract disorders

Mutraroga - Urinary tract disorders

### **Pharmacology:**

Astringent, Antispasmodic

Appetiser, Anodyne

Anithepato toxic

Anti - viral, Biliary, urinary Cell protective property

Carminative, Febrifugal

Analgesic, Tonic

Vermifugal

Hypoglycemic, Emmenagogue

Laxative

### **Useful in -**

Gonorrhoea, Frequent menstruation

Diabetes, Skin ulcers

Sore throat, Itching

Chronic dysentery, Dropsy

Menorrhagia, Dyspepsia

Ophthalmia, Kidney stone

Hepatitis, Jaundice

Liver carcinoma, Cystitis

Prostastis, Venereal disease

Anemia, Hypertension

### **Adverse effect:**

There is no known adverse effect after the normal use of Bhumyamlaki.

It is a coolant hence, can increase Vata Dosha, if used in very high doses.

It has laxative action. Hence, people with diarrhea, dysentery should take care.

### **Ayurvedic medicines containing Bhumyamlaki:**

Clearliv syrup: Clearliv is a proprietary Ayurvedic medicine. It conserves the liver, controls the liver damage and corrects the liver functions.

A3 forte capsule: It is a proprietary Ayurvedic medicine used for antipyretic, analgesic and antibacterial action.

Avir tablet: It is a proprietary Ayurvedic medicine used for treating allergic conditions like sneezing , urticarial rashes etc.

Livplus capsule: It is a proprietary Ayurvedic medicine used for

the treatment of hepatic disorders, hyperacidity and improving the immunity.

**Vasuliv tablet:** It is a proprietary Ayurvedic medicine used for the treatment of hepatic disorders.

**Beliv tablet:** It is a proprietary Ayurvedic medicine used for the treatment of fibrosis of liver and regeneration of the hepatic cells.



### **Research articles related to Phyllanthus niruri:**

**Anti - oxidant property:** In this study we assessed the antioxidant potential of Phyllanthus amarus (Euphorbiaceae). PAAEt treated rats showed a significant decrease in plasma LPO and a significant increase in plasma vitamin C, uric acid, GSH levels and GPx, CAT and SOD activities. SCGE experiment reveals that PAAEt was devoid of genotoxicity and had a

significant protective effect against H<sub>2</sub>O<sub>2</sub>, STZ and nitric oxide (NO) induced lymphocyte DNA damage.

Hepato - protective action: The hepato protective effect of the aqueous extract of *Phyllanthus niruri* was evaluated in an acetaminophen - induced hepatotoxicity study using 24 male rabbits of the New Zealand White breed. The most significant healing or hepato protective effect of the extract of *P. niruri* was seen in the group administered the extract at 25 mg/kg which showed no significant change in the liver, both grossly and histologically.

Anti - diabetic study: epidemiological determinants of diabetes mellitus. In the present investigation hypoglycemic efficacy of *Phyllanthus niruri* methanol extract was tested on STZ induced mice diabetic models. The DC mice showed a significantly ( $p < 0.001$ ) higher level of glucose (+279%), when compared with their normal control counterparts. Diabetic mice of both of the groups (DT150 and DT250) showed a reduction in glucose levels, when compared to the DC ones. The results clearly indicated that the *P. niruri* whole plant methanol extract is anti - diabetic in nature due to the presence of different types of active phytochemicals.

Anti - inflammatory study: *Phyllanthus niruri* L., Euphorbiaceae, spray - dried standardized extract was studied for its anti - inflammatory and antinociceptive activities in adult albino rats

and mice. In conclusion, this study suggested that *Phyllanthus niruri* spray - dried standardized extract has potent inflammatory and antinociceptive activities and that these activities are not modified by standard drying process, making it feasible to use the dry extract standardized to obtain a phytotherapeutic preparation and thus validating its use for the treatment of pain and inflammation disorders.



### **Botanical classification**

Kingdom: Plantae

Order: Malpighiales

Family: Phyllanthaceae

Genus: Phyllanthus

Species: P. niruri

### **Sanskrit Synonyms of Bhumi Amalaki**

Bhoomi Amalaki, Bhumyamlaki/ Bhu dhatri - Small fruits grow in the ground level

Shatamala, Bahupatra - Plant has many leaves

Bahusuta, Bahuphala - Plant has many fruits

Tali - Bhumyamalaki removes malas from the body and retains health. So it is called as Tali.

Tamalaki - Fruit like small amalaki (gooseberry)

Trutoshiva, Sookshma patri - The leaves are small in size

Shubhankini, Shiva - auspicious

Bahu veerya - highly potent

Tali, Tamalini, Drudha Pada, Himalaya, Vitunnaka, Drudhamala, Dhrudha,

Vishvakparni, Dhurdha Phala, Tunnakarika, Ajata, Jatapi,

Ucchata, Charuta,

### **Classical categorization:**

Charaka - kasahara, Shwasahara

Dhanvantari Nighantu - Chandanadi varga

Bhavaprakasha - Guduchyadi varga

Raja Nighantu - Parpatadi varga

Kaiyyadeva Nighantu - Oushadhi varga

### **Names in different languages:**

Hindi name - Jangli amlai, Bhui amla

English name - Gale of wind, Stonebreaker

Bengali name - Bhui amla

Gujarathi name - Bhanya amli

Kannada name - Nelanelli, Bhu nelli

Malayalam name - Kizharnelli, kizhukanelli

Marathi name - Bhui amla, Bhui avla

Brazilian name - Quebrapedra

Oriya name - Bhui amla

Tamil name - Kilanelli

Telugu name - Nela usiraka

Urdu name - Bhumiamala

Spanish name - Chanca piedra

Burma - Mizhipiya

Bihar - Meri koa, kandara

Canresa - Kirannelligida

Decan - Bhuvinanvalah

Delhi - Dhadhan, monk

French - Herbed u chargin

Philipines - Hierba de san Paulo

Porbunder - Bhonyanmeri

Sind - Niruri

Sinhalesha - Pittawaka

Westindies - Pettitamarine

## **100. Jamalgota: Purging Croton Uses, Medicines, Side Effects**

Jayapala - Croton tiglium is a plant mentioned in Ayurveda for the treatment of alopecia, erectile dysfunction, ascites, severe constipation and to induce purgation, so the name, purging croton. It is known as Jamalgota in Hindi.

Latin name - Croton tiglium Linn.

Family - Euphorbiaceae

### **Morphology of croton tiglium:**

Jayapala is a small tree growing to a height of 15 - 20 feet and is found in North East and South Indian state. The leaves are 2 - 4 inch long, slimy with 3 - 5 veins. Flower is greenish yellow, 2 - 3 inch long and unisexual in nature. The fruit is 1 inch long, white in color, round and has 3 ridges. The seeds are oval, brown colored and 0.5 to 0.7 inch long. Inside the seed is reddish brown colored oil like substance. The flowers are seen



in summer season and the fruits are seen in the winter season.



**Croton tiglium medicinal properties:**

Rasa (Taste) - Katu (Pungent)

Guna (Qualities) - Guru (Heavy for digestion), Ruksha (Dry in nature), Teekshna (Strong)

Vipaka - Katu (Undergoes Pungent taste after digestion)

Veerya (Potency) - Ushna (Hot)

Karma (Actions) - Kaphapitta shamaka (reduces vitiated kapha and pitta dosha)

**Part used** - Seed, Seed oil

**Dosage** -

Seed - 25 to 50 mg

Seed oil - 1 - 2 drops



### **Chemical composition of croton tiglium:**

The seed contains Fatty fixed oil Tiglinic acid, Crotonic acid and Crotonol.

### **Jayapala Shodhana - Purification of Jamalgota seeds:**

जयपालं त्वग्रसजारहितं पोट्टलीगतम् ।

ढोलायन्त्रे तु यामैकं स्वेदयेत् गव्यदुग्धतः ॥

संपेष्य खल्वे मूलेषु खर्परेषु प्रलेपयेत् ।

विज्ञाय विगतस्नेहं जयपालं समाहरेत् ॥ (र.त)

jayapālaṃ tvagrasajārahitaṃ poṭṭalīgataṃ |

ḍholāyantre tu yāmaikaṃ svedayet gavyadugdhataḥ ||

sampeṣya khalve mūleṣu kharpareṣu pralepayet |

vijñāya vigatasnehaṃ jayapālaṃ samāharet || (ra.ta)

Ayurveda mentions about the shodhana (purification) method to purify Jayapala seeds before its use. The shodhana method is done to reduce the toxicity of the seeds.

The seeds are taken and cut into two along the ridge. Then the seeds are boiled in cow milk for about 3 hours and the dried under sunlight by keeping the seeds in an earthen plate. The earthen plate absorbs the oil content from the seeds thus reducing its toxicity level.

- Jayapala beeja is taken in a vessel containing water and kept overnight to remove the cotyledon.
- It's then taken in a clean cloth and made into pottali and swedana is done in dola yanthra with cow milk for three hours.
- Then it's taken out and the beejankura is removed.
- It's then made into paste and applied over a mud pot.
- Kept, till the oil oozes out and partially dries.
- It's then collected.

### **Uses of Jamalgota:**

- The paste of the purified seeds of Jayapala is applied over the scalp to treat alopecia.

- The paste of the seeds of Croton tiglium is applied over the penile region as part of treatment of erectile dysfunction.
- The seed powder is given in a dose of 20 - 40 mg to induce purgation and treat cases of ascites and severe constipation.
- The paste of the seeds of Jayapala is applied over the skin surface to treat skin diseases.
- In cases of snake bite poisoning, the paste of the seeds of Jayapala is mixed with lime juice and applied as collyrium.
- To treat intestinal worms, the seed of Croton tiglium is given in a dose of 20 mg with hot water.
- In cases of generalized swelling all over the body, the paste of seeds of Jayapala is given to induce purgation and reduce the swelling.

तयोः फलं रसे पाके मधुरं रेचनं लघु ॥

सुस्निग्धं बृंहणं वृष्यं बल्यं पित्तकफापहम् ।

निहन्त्यनिलदाहास्रकासकृच्छ्रक्षतक्षयान ॥

क्षुद्रदन्तीफलं स्वादु मधुरं रसपाकयोः ।

शीतलं सृष्टविण्मूत्रं गरशोफगदापहम् ॥ कै.नि.

जेपालः कटुरुष्णश्च कृमिहारी विरेचनः ।

दीपनः कफवातघ्नो जठरामयशोधनः ॥ ध.नि.

जयपालो दन्तिबीजं विख्यातं तिन्तिलीफलम् ।

जयपालो गुरुः स्निग्धो रेची पित्तकफापहः ॥ भा.प्र.

जैपालः कटुरुष्णश्च कृमिहारी विरेचनः ।

दीपनः कफवातघ्नो जठरामयशोधनः ॥ रा.नि.

tayoḥ phalaṃ rase pāke madhuraṃ recanaṃ laghu ॥  
susnigdhaṃ br̥mhaṇaṃ vṛṣyaṃ balyaṃ pittakaphāpaham ।  
nihantyaniladāhāsarakāśakṛcchrakṣatakṣayāna ॥  
kṣudradantīphalaṃ svādu madhuraṃ rasapākayoḥ ।  
śītaḥ sr̥ṣṭaviṇmūtraṃ garaśophagadāpaham ॥ kai.ni.  
jepālaḥ kaṭuruṣṇaśca kṛmihārī virecanaḥ ।  
dīpanaḥ kaphavātaghno jaṭharāmayaśodhanaḥ ॥ dha.ni.  
jayapālo dantibījaṃ vikhyātaṃ tintilīphalam ।  
jayapālo guruḥ snigdho recī pittakaphāpahaḥ ॥  
Bhavaprakasha.

jaipālaḥ kaṭuruṣṇaśca kṛmihārī virecanaḥ ।  
dīpanaḥ kaphavātaghno jaṭharāmayaśodhanaḥ ॥ rā.ni.

### **Traditional uses:**

#### **Fruits**

Madhura Vipaka (taste conversion after digestion) - sweet

Snigdha - unctuous, oily

Brumhana - nourishing, nutritious

Vrushya - aphrodisiac, improves vigor

Balya - improves strength and immunity

Vatapittahara - Balances Vata and Pitta Dosha

### **Indicated in**

Kasa - cough, cold

Shwasa - asthma and chronic respiratory disorders

Kshataksheena - wounded, injured

Garavisha - chronic poisoning

### **Purified seeds:**

Deepana - improves digestion strength

kaphavataghna - Balance Kapha and Vata Dosha

Rechana - induces purgation

### **Uses:**

In pain and swelling - Paste of the seed is applied externally

In Indraplupta - Alopecia areata - Seed paste is applied over the affected area

In snake bite, macerate the seed in lemon juice and applied to eyes

### **Adverse effect of purging croton:**

The oil of the seed of Jayapala can cause severe purgation leading to dehydration and pain in abdomen. The oil can cause blisters in skin if applied in high concentration.

### **Poisoning symptoms:**

Croton oil is the most powerful hydragogue cathartic ever

known. It causes violent inflammation to the mucous membranes. It produces nausea and violent vomiting. Impure Jayapala beeja produces vesicles with yellow exudation and urticaria of the abdominal skin.

### **Treatment:**

Consume milk, curd, ghee, lemon juice and water.

Gastric lavage with hot water.

Give snigdha dravyas like yava jala, egg yolk etc.

Administration of morphia injection.

Give karpoorā arka to prevent virechana

Symptomatic treatment

### **Ayurvedic medicines containing Jaypal:**

[Krimishodhini vati](#): It is an Ayurvedic tablet used in treating intestinal worms, relieves constipation, bloating of abdomen.

[Chesol oil](#): It is a proprietary Ayurvedic medicine used for the treatment of rheumatic disorders, bronchitis and chest colds with cough and headache.

[Ezilax S Tablet](#): It is a proprietary Ayurvedic medicine used for the treatment of constipation.

[Arjunin capsule](#): It is a proprietary Ayurvedic medicine used as cardiac protector, increasing the strength of cardiac muscles.

[Jalodharari rasa](#): It is a medicine in tablet form, containing purified metals and is used in the treatment of ascites.

[Anthrakutara gulika](#): It is a medicine in tablet form, used in bloating, constipation and such other abdominal conditions.

### **Research articles related to Croton tiglium:**

[Anti - helminthic activity](#): The objective of the study was to test the anthelmintic activity of aqueous and petroleum ether extracts of Croton tiglium seeds. The activity was checked in aqueous and petroleum ether extracts at three different concentration (25, 50 and 75mg/ml) and results were expressed in terms of paralysis time and death time for worms. The results were compared with standard solution, Albendazole (20 mg/ml & 40mg/ml). Both the extract showed significant anthelmintic activity.

[Gastro intestinal effect](#): Croton tiglium used as a cathartic in Ayurvedic system of indigenous medicine, was investigated for its effects in experimental animals. The extract exhibited a dose dependent cathartic effect in albino rats, the extract also showed an increase to gut movement with an increased contractile movement on rabbit jejunum, partially blocked by atropine these preliminary findings suggest that the ethanol extract of the croton dried nuts elicit a purgative effect by increasing the gut motility, partially via muscarnic receptor activation.

[Anti - dermatophytic activity](#): Investigations were carried out in this study to evaluate the anti - dermatophytic activity of the



stems, leaves, and seeds of *Croton tiglium*. The anti - dermatophytic activities of the extracts were evaluated by disc diffusion and microdilution susceptibility assays against *Trichophyton mentagrophytes*, *T. rubrum*, and *Epidermophyton floccosum*. The ethanolic extracts of stem or seed of *C. tiglium* exhibit strong anti - dermatophytic activities and, thus, could be considered for application on treating skin fungal infections after appropriate processing.

**Classical categorization:**

Bhavaprakasha - Guduchyadi varga

Dhanvantari Nighantu - Guduchyadi varga

Kaiyyadeva Nighantu - Oushadhi varga

Raja Nighantu - Pippalyadi varga

**Names in different languages:**

Hindi name - Jamalgota

English name - Purging croton

Bengali name - Jayapala

Gujarathi name - Nepali

Kannada name - Nepala, Japala

Malayalam name - Neervalam

Punjabi name - Japolota

Tamil name - Narchalam

Telugu name - Nepalamu

Italian name - Grana tiglio

Portuguese name - croton tiglio

Arabic name - Habbusalatin

### **Scientific classification**

Kingdom: Plantae

Order: Malpighiales

Family: Euphorbiaceae

Subfamily: Crotonoideae

Tribe: Crotoneae

Genus: Croton

Species: C. tiglium

### **Sanskrit Synonyms of Jaipal:**

Rechaka - That which causes purgation

Beeja rechaka - seed causes purgation

Jayapala - That which wins over all diseases

Dantibeeja - Beeja resembles to that of Danti beeja

Maladravi - That which causes liquid defecation

Nikumba - Globose fruit

Beejarechaka - The seed causes purgation

Kumhibeeja - Pot shaped seed

Sheegra - Fast acting drug

Hastidanti - Big variety of danti

Upachithrika - Leaves resemble to that of Chithraka

Chithramoola - Moola resembles to that of Chithraka

Udumbarachada - Bark is similar to that of Udumbara Mukoola, Tintideephala.

### **Text book references:**

The literary review explains the citing of Jayapala in various classical texts of Ayurveda. The name is not found in any of the Vedas. But we get plenty of references in the name of Danthibeeja in Brihathrayis and most of the Nigantus. In rest of the classical texts the name Jayapala as such is not found.

Jayapala in the synonym of Danthibeeja is found in almost all sthanas of Charaka Samhitha, Sushruta Samhitha and Ashtanga Hridaya.

In the first chapter of suthra sthana of Charaka Samhitha, Jayapala is mentioned among the drugs where root is used as medicine. In the next chapter the purgative quality of Jayapala is explained in the event of subsidence of the vitiated dhoshas. In the twenty fifth chapter of Suthra sthana of Charaka Samhitha, Danti is mentioned under the eleven alcoholic preparations made out of roots. The thirtieth chapter, Ardhedasha mahamuliya adhyaya cite the name of the drug in it. The references are also found in seventh and eighth chapters of Vimana sthana; seventh, thirteenth, twenty seventh and thirty third chapters of Chikitsa sthana; first, eleventh and twelfth chapters of Kalpa sthana and tenth and eleventh chapters of Sidhi sthana.

Sushruta Samhitha also has mention of Jayapala as Dantibeeja in eleventh, thirty ninth, forty second forty fourth and forty fifth chapters of Suthra sthana; second, eighteenth and thirty first chapters of Chikitsa sthana and forty second and fifty second chapters of Uthara sthana.

Vagbatta in his Ashtanga Hridaya mentions the drug Jayapala in fifteenth chapter of Suthra sthana; fifteenth and nineteenth chapters of Chikitsa sthana; second chapter of Kalpa sthana and thirtieth chapter of Uthara sthana.

Ashtanga Nigantu explains the synonyms and qualities of Jayapala. Nigantu Adarsha mentions it under Amlakyadi Varga and Dhanwanthari Nigantu under Eranda Kula. Bhavaprakasha Nigantu as well states about Dantibeeja.

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