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“JATI (*Jasminum officinale* Linn.) AN AYURVEDIC MEDICINE: A CLASSICAL AND CONTEMPORARY REVIEW”

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Abstract –

“Jati” (*Jasminum officinale* Linn.) belongs to the Oleaceae family one of the herb mentioned in Ayurveda, it is widely cultivated throughout India for its aromatic flowers. Various synonyms given to Jati according to their swarup and therapeutic properties. Various Acharyas explain Jati in different categories, Jati is a perennial climbing shrub. Due to its medicinal properties it has been used for therapeutic purpose since centuries, chemical constituents mainly present in Jati such as Essential Oil, Flavonoids, Alkaloids, Tannins which are responsible for its therapeutic actions. It is used as Vrana shodhan, Ropan, Varnya, Kushtaghna, Kandughna, Anti-inflammatory, Anti-spasmodic, Antiseptic, Anti-oxidant.

Key Words – Jati, *Jasminum officinale* Linn., Aromatic flowers, Therapeutic uses, Pharmacological action.

Introduction

Ayurveda is ancient science and complete guide of healthy living, “*Jati*” (*Jasminum officinale* Linn.) is one of the herb mentioned in Ayurveda, it is widely cultivated for its aromatic flowers, it’s aroma is renowned in perfumery. In Ayurveda, it is known as “*Mallika*” or “*Jati*” Due to its medicine koal properties like Anti-inflammatory , Anti microbial, Anti spasmodic , wound healing, has been used for medicinal purpose since centuries, various parts of the plant like leaves, flowers, and roots are used. In Samhita Jati is described as flower of god. It is perennial climbing shrub with white flower. It is also cultivated in various parts of India.

Jati is member of oleacea family (olive family) , The Oleacea (olive family) is a family of dicotyledonous flowering plants ,features of oleacea family are mostly woody plants: trees, shrubs, or lianas (woody climbers) , leaves opposite, simple or pinnately compound, stipulate. Inflorescence- inflorescences determinate, terminal or axillary. Flowers bisexual or sometimes unisexual.¹

Taxonomical/ Scientific Classification:²

Kingdom: Plantae-Plants

Subkingdom: Tracheobionts- Vascular plants

Division: Magnoliophyta- Flowering plants

Class:Magnoliopsida- Dicotyledons

Order: Scrophulariales

Family: Oleaceae- Olive family

Genus: *Jasminum*

Species: *officinale* linn

Vernacular names³

Table 1

Latin name: *Jasminum officinale* linn.

Sanskrit	Malati
Assam	<i>Yasmeen</i>
Bengal	<i>Chamelee</i>
English	<i>Jasmine</i>
Gujarati	<i>Chamelee</i>
Hindi	<i>Chamelee</i>
Kannada	<i>Jati Maltiga</i>
Marathi	<i>Chamelee</i>
Tamil	<i>Pichi, Jatimalli</i>
Urdu	<i>Chameli, Yasmeen</i>

Synonyms⁴

Table 2

<i>Jati , Sumana</i>	Pleasing the mind
<i>Chetika</i>	Enlightening the consciousness
<i>Hridyagandha</i>	Beautiful smell
<i>Saumansayani</i>	Pleasing the mind

Rasapanchak

Rasa- Tikta, Kashaya Vipaka- Katu

Virya- Ushna

Guna- *Laghu, Snigdha, Mrudu Dosakarma*
– *Tridosahara*

Dosage – *Churna* – 1-3 gm ,

Kwatha – 50-100 ml,

Jatyadi Tail - As per requirement ,enough to cover the affected area.

Kalpa – *Jatyadi tail, Jatyadi Ghruta, Jatyadi varti*⁴, *Vasantkusumakar Rasa*.³

Vedic kala –

Direct identification of Jati in Vedas is limited, but inference-based references exist.

I. *Atharvaveda* -

Mentions *sugandhi dravya* (fragrant substances), often used in rituals and healing and protection , possibly including Jati or similar scented herbs.⁵

II. *Yajurveda* –

Uses *gandha-dravya* (aromatic substances) in descriptions of *Yajna* rituals (*homa* and *upacharas*) , though not naming jasmine directly. The term "Pushpa" (flower) is frequently mentioned in a spiritual context and some interpretations by commentators align this with known fragrant flowers such as Jati.⁶

Valmiki Ramayana –

In the *Ramayana*, the forests of *Chitrakoot* (*Kamadgiri*) are described as being rich in diverse flora, the species found in *Chitrakoot* (*Kamadgiri*) forests includes ornamental plant *Jasminum officinale* (commonly referred to as *Champa* or *Vasanti*), known for its fragrant flowers and aesthetic value.⁷

Classical Sanskrit Poetry –

Jati is mentioned in *Kalidasa*’s poetry –

I. *Kalidasa’s Ritusamhara* (Description of Seasons)-

Kalidasa describes how fresh buds of *juhi*, jasmine, *maulashri* and *kadamba* were used to weave garlands by the rainy season for its beloved.

Kalidasa describes young women adorned with garlands of fragrant flowers like *Jati*, *Mallika*, and *Campaka*, enhancing the beauty of love in spring.⁸

II. *Kalidasa’s Meghaduta*-

In this lyrical poem, *Kalidasa* refers to Jati flowers as part of the natural beauty that the *yaksha* asks the cloud to describe to his beloved.⁹

Amaruśataka

Jati is used in erotic metaphors-e.g., garlands offered in love, or the soft touch of its blossoms symbolizing the beloved.¹⁰

Classical categories

• *Charak Samhita* – *Kushthaghna*.¹¹

• *Bhavprakash Nighantu* – *Pushpavarga*¹²

• *Kaiyadev Nighantu* - *Aushadhi Varga*¹³

• *Shaligram Nighantu* – *Pushpavarga*¹⁴

• *Raj Nighantu*- *Karviradi Varga*¹⁵

• *Dhanvantari Nighantu* – *Amaradipanchamo varga*¹⁶

Distribution –

• A large scrambling or twining shrub, considered to be a native of north

western himalayayas, widely grown in gardens throughout india.

- The plants are cultivated on a large scale in a few areas in U.P, for example in Ghazipur, Farrukhabad, Ballia and Jaunpur.¹⁷

Morphology-

Figure :1- Jati plant (*Jasminum officinale* Linn.)

A. Macroscopic

☐ Leaf

Leaf single or in groups of 2-7 leaflets, upto 7.5 cm long and upto 2.5 cm broad; imparipinnately compound; terminal leaflet larger; ovate or lanceolate, acuminate; lateral leaflets shorter, acute, sessile or shortly petiolate; brownish-green; taste, bitter.³

☐ Inflorescence

Inflorescence terminal with few-flowered (at times single-flowered) cymes, shorter than leaves.

☐ Flowers - Flowers white with 4-5 lobes, fragrant.

☐ Fruit - Fruit elliptic globose, black when ripe.¹⁷

B. Microscopic:

☐ Leaf

Rachis - Rachis shows more or less convex outline with two lateral wings: epidermis single layered covered by thick cuticle; hairs mostly unicellular with pointed apex, glandular rarely found only on the upper surface; collenchyma 2 -5 layered; pericycle represented by slightly lignified small fibre groups; vascular bundles three,

median crescent-shaped. small accessory bundle present in each wing.

Midrib - shows similar structure as rachis; 3-5 layers of collenchymatous cells towards lower surface
Lamina - s; pericycle present in the form of non-lignified fiber groups, vascular bundle single and crescent-shaped.

Lamina – shows dorsiventral structure, epidermis single layered on either side, covered by a thick striated cuticle; hairs as in rachis, palisade 1-2 layered; spongy parenchyma 4-6 layers; stomata anomocytic only in lower surface.³

Powder Microscopy –

Figure- 2- Powder microscopy of Jatipatra (*Jasminum officinale* Linn.):Features- Sclerides, Trachids, Calcium oxalate crystals.

Yellowish-green; shows palisade and spongy parenchyma, unicellular hairs, fibers and vessels with spiral thickening, polygonal epidermal cells and anomocytic stomata in surface view³

Types

There are two varieties based on the flower color -

I. *Jati* (with white flower) – *Jasminum officinale* Linn.

II. *Svarnajati* (with yellow flower) – *Jasminum humile* Linn.⁴

Figure 3 – *Jati* (*Jasminum officinale* Linn.)¹⁸

Figure 4- *Svarnajati* (*Jasminum humile* L.)¹⁹

Chemical composition –

Resin, Salicylic Acid, Alkaloid (Jasminine) and Essential Oil³

a. Leaves –

Presence of high amount of alkaloids, coumarins, flavonoids and tannins, while terpenoids, glycosides and saponins were also present but in lesser extent.²⁰

b. Flower –

Alkaloids , Saponins, Tannins, Resin , Flavonoids ,Terpenoid in minor quantity.²¹

Medicinal Uses in Ayurveda Karma –

*Vrana shodhan , Ropan , Varnya, Vajikar, Vedanasthapana, Raktaprasadan ,Aartavajanan, Saumnasyajanan, Kushtaghna , Kandughna Vishaghna, Raktaparasadan ,Aartavjanan.*⁴

Rogagnata –

*Mukhapak ,Vrana , Netrarog , Streerog , Karnashula ,Karnapuya, Dantashula , Dantadaurbalya , Shirashula , Kandu , Kushta ,Mutraghat , Vatavikar, Manasik Daurbalya , Bhrama , Murchha.*⁴

Therapeutic uses –

- Crushing leaves under the teeth and chewing them make teeth and gums firm. Gargling with its decoction in *mukhapaka* is useful.
- *Parisheka* of the root decoction is useful in shirahshools and other types of pain and aches.
- *Pushpasiddha taila* should be massaged in *manodaurbalya, bhrama, and murchha*.

- A paste of the *pushpakalka* or the bark should be applied in *Kushtha*.

- Decoction of the leaf or the root should be used for *Vranashodhan and ropana*.

- *Pushpasvarasa* should be instilled in eye in eye diseases.

- *Pattrasiddha taila* be instilled as ear drops in *pooyakarna* and *karnashoola*.

- Internally Useful in *udavarta* and *anaha* being *snigdha*.

- *Quatha* is also useful in *raktadushtijanya* diseases being *raktaprasadana*.

- *Anulomana* Indicated in *mutrakrichha* being *mutarajanana*.

- *Moola* useful in *klaibya* and *anartava* being *vajikarana* and *artavajanana* and also in *kushtha* and *vishabadha*

- In *Rajorodh* (Amenorrhea) Paste of leaves and flowers is applied in the abdominal area.²²

Pharmacological properties

1. Antioxidant activity

□ Leaves and flowers contain flavonoids and phenolic compounds contributing in Antioxidant activity, Protect cells from oxidative stress.²³

2. Anti-inflammatory activity

□ Ethanol and methanol extracts of leaves/flowers reduce inflammation.²⁴

3. Antimicrobial activity

☐ Active against Gram-positive and Gram-negative bacteria.

Phytochemicals: Essential oils, terpenoids, flavonoids.²⁵

4. Antispasmodic & Muscle Relaxant

☐ Research supports smooth muscle relaxation, possibly due to alkaloids and essential oils.

☐ Essential oil exhibits significant spasmolytic and vasodilator effects.²⁶

5. Antidepressant & Anxiolytic

☐ Jasmine aroma stimulates the central nervous system, enhances mood, reduces anxiety and stress and can help reduce depressive symptoms.²⁷

☐ The aroma of *Jasminum officinale* has been widely recognized in aromatherapy for its significant psychophysiological effects. Inhalation of jasmine essential oil is associated with mood enhancement, reduction in anxiety, and increased feelings of well-being due to its influence on the limbic system and neurotransmitter activity. It exhibits mild sedative properties, promoting restful sleep without inducing lethargy.²⁸

☐ Research also indicates that jasmine oil can improve alertness, reaction time, and energy levels following inhalation.²⁹

6. Aphrodisiacs and Cardiotonic

☐ Jasmine aroma has demonstrated aphrodisiac effects, likely due to its stimulatory impact on brain activity, and has been traditionally used in Ayurvedic medicine for its *vrishya* (aphrodisiac) and *hridya* (cardiotonic) qualities.³⁰

Conclusion

This article on Jati (*Jasminum officinale* Linn.) reveals its long-standing use in Ayurvedic medicine. In Ayurvedic literature, Jati is praised for its fragrance, wound-healing, anti-inflammatory, and antiseptic properties and is frequently used in formulations for skin disorders, oral hygiene, and gynaecological care. Several phytochemicals like flavonoids and essential oils have been identified, supporting its antimicrobial and anti-inflammatory effects. Modern pharmacological studies further validate its antioxidant, analgesic, antispasmodic and anxiolytic actions, supporting its traditional uses and indicating potential for new applications in phytomedicine. The plant's ability to promote emotional well-being and physical health underscores its devastatingly powerful medicinal utility, making Jati a valuable drug in the formulation of herbal remedies and essential oil therapies.

However, more clinical trials and toxicological studies are required to establish standardized dosage and safety profiles and explore new therapeutic potentials. Thus, Jati emerges as a plant of multifaceted importance both in ancient healing systems and modern phytotherapeutic exploration. Continued research and clinical validation will help in optimizing its applications for holistic and integrative medicine.

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