WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.453
Volume 14, Issue 17, 43-53. Review Article ISSN 2277–7105

UNRAVELING MALLIKAPUSHPA – A MULTIFACETED INFLORESCENCE OF MEDICINAL WONDERS

Mishra Subhi P.*[1], Patil Yoginee S.[2]

[1*]P.G. Scholar, Department of Rasashastra and Bhaishajya Kalpana, Tilak Ayurved Mahavidyalaya, Pune.

[2]Associate Professor, Department of Rasashastra and Bhaishajya Kalpana, Tilak Ayurved Mahavidyalaya, Pune.

Article Received on
14 July 2025,

Revised on 03 August 2025,
Accepted on 23 August 2025

DOI: 10.20959/wjpr202517-37953

***Corresponding Author**

Mishra Subhi P.

P.G. Scholar, Department of Rasashastra and Bhaishajya Kalpana, Tilak Ayurved Mahavidyalaya, Pune.

ABSTRACT

Mallikapushpa (flowers of Jasminum sambac Linn.) hold a significant place in Ayurvedic medicine for its cooling, anti-inflammatory, rejuvenating and tremendous other properties. As interest in natural remedies grows, this underexplored inflorescence holds promise for modern holistic healthcare, warranting further validation. **Objectives–** To make efforts to study Mallikapushpa (Jasminum sambac Linn.) for its medicinal properties, botanical characterstics from various ayurvedic classics and articles. **Methodology-** Textual Analysis of existing research papers, historical texts, samhitas and ayurvedic literature featuring Mallikapushpa. Compilation and Documentation of traditional formulations and uses containing Mallikapushpa. Comparative analysis – Comparison of traditional uses with modern scientific research. **Conclusion–** Mallikapushpa stands as a potent herbal resource with a deep rooted legacty in traditional medicine particularly within Ayurveda. Scientific exploration of this inflorescence can unlock its wider potentials in contemporary healthcare approaches. Continued research and clinical validation are necessary to fully harness its safe and effective usage in modern era.

KEYWORDS: Mallikapushpa, Jasminum sambac Linn., Mogra, Arabian jasmine, Eye health, Galactogogue, Anti-inflammatory, analgesic, traditional medicine, holistic health.

INTRODUCTION

Mallikapushpa (flowers of Jasminum sambac Linn.) also known as Arabian jasmine has been used for centuries together particularly in Ayurveda and Unani systems. Jasminum sambac is a treasure trove of medicinal properties and almost every part of this plant is used in traditional medicine. It is a versatile plant with diverse uses which include medicinal, cosmetic, culinary and beverages, Cultural and spiritual, aromatic as well as ornamental uses.

Ancient texts speak of mogra as moonbeams caught in dewdrops, a poetic metaphor that science later validates through flower's remarkable nocturnal behaviours. As twilight descends, mogra's petals release their most intense fragrance creating "Breath of night's deepest dreams" as per Persian poets. This inflorescence has been a priced possession in traditional medicine for centuries, boasting an impressive array of healing properties that have earned it a revered place in the annals of herbalism. It is now cultivated throughout the tropical and subtropical parts of world and is native to southwestern and southern Asia, mainly Philippines, India, Myanmar and Sri Lanka.

Beyond its captivating appearance present review aims at delving deeper into plant's pharmacological properties, unraveling its chemical constituents, therapeutic applications, and the cutting-edge research that's unlocking its healing potential.

Historical Importance of Jasmine

Jasmine, specifically *Jasminum sambac*, has held significant cultural, medicinal, and symbolic importance for centuries across various civilizations. Its origins can be traced to South and Southeast Asia, where it was revered not only for its enchanting fragrance but also for its medicinal properties. In ancient India, the plant was used in religious ceremonies, and its flowers were often offered to gods and deities in temples. Jasmine was also used in bridal rituals, symbolizing purity and the bringing of prosperity and happiness into marriage. In ancient Greek and Roman civilizations, jasmine was valued for both its ornamental and medicinal qualities. The Greeks recognized its use in perfumery, where it became one of the prized ingredients for the creation of perfumes. The Romans, too, cherished the flower for its fragrance and used it in baths and for personal adornment.

In traditional Chinese medicine, it was used to treat a range of health issues, including digestive problems and menstrual disorders.

Sacred connections of Arabian Jasmine

In Indian spiritual traditions, mogra holds a special place. The flower appears in ancient texts as one of the sacred flowers, its white petals symbolizing purity of thoughts. Temple traditions particularly in South India, consider evening mogra garlands essential for certain prayers. The connection goes deeper in Krishna related traditions, where mogra is said to bloom spontaneously to the sound of his flute. Modern research has begun to understand what our ancestors seemed to know intuitively about mallikapushpa's effect on well being. The flower's fragrance contains compounds that interact with our brain chemistry in remarkable ways.

Mallikapushpa in Ayurveda

There are plenty of references related to Mallikapushpa found in Ayurvedic classics where different parts of plants are mentioned for its applications in various diseases and different kalpanas.

Mallika Pushpa has been mentioned in 'Pushpa varga' of Sushruta Samhita.[1] It has also got its classical background regarding its 'netrya' and Chakshushya properties in Dhanwantari Nighantu,[2] Bhavprakash Nighantu[3] and Raj nighantu[4] etc.

मल्लिकुसुमाभयकरिलेपो घर्मे विचर्चिकादाहे ॥

भा. प्र. चि. 36/84

A reference found **in Bhavaprakash** details the use of paste of flowers of Mallika, Ushira and Nagakeshar for frequent sweating, skin rashes and burning sensation.[5]

"सन्त्रास्यति नेत्रोत्थरुज पित्तसमीरजित्।"

प्रि. नि. 45/34

References found in priya nighantu are suggestive of the opthalmic benefits of Mallikapushpa mainly stating its benefits in Pittavataja avastha of netraroga.[6]

"मालतीमल्लिकापुष्पैर्बद्धाक्षो निवसेन्निशाम् |"

- अ. हृ. सू. 24/21

A reference in Ashtangahridayam suggests the use of Mallika Pushpa for generating rejuvenating effect on eyes after tarpana and putapaka as they develop lassitude after these therapies.[7]

- **Ayurvedic formulations comprising Mallikapushpa (flowers of Jasminum sambac Linn.)**

1) Phala pushpa Panaka – (Ref. - Ayurveda Aahar Compendium)

एवमम्लस्य पुष्पस्य फ़लस्याम्लस्य वा तथा ।
शर्करा मरिचोन्मिश्रो रसः स्यात् पानकं वरम् ।।
क्षे. कु. 12/79

Ayurveda samhitas signify importance and suggest consumption of panak kalpana *as* pathyapathya in grishma ritucharya mainly in grishma ritu (summer season). References of such Panaka has been found in Ayurveda aahara compendium containing aromatic flowers (Viz. Mallika pushpa) as one of the prime ingredients.[8]

Ingredients– dugdha, panasa phala, ketaki, ikshu rasa, amra rasa, aromatic flowers – champaka, mridvika, dadima, mallikapushpa, jiraka, madhu etc.

Classical indications – Pittahara (alleviates pitta dosha), Vrushya (aphrodisiac).

2) Kumarika Varti

अशितिस्तिलपुष्पाणि षष्टिः पिप्पलीतण्डुलाः ।
जातिपुष्पाणि पञ्चाशन्मरिचानि च षोड्श॥
एषा कुमारिका वर्तिर्गतं चक्षुर्निर्वर्तयेत् ।।196।।
भै. र. नेत्ररोग 196-97

This Kumarika varti finds its reference back in Bhaishajya ratnavali and is found to cure redness and inflammation of eyes. It is advised to use this varti with Madhu (Honey), Gulab arka (rose distillate), or cold water following its application in inner eyelids. Helps eye to regain its vision miraculously.[9]

Benefits

Reduces inflammation and redness in eyes

Relieves strain in eyes

Raktaja netra roga

Strengthens muscles of eye

3) Vranashukrahari varti

चन्दनं गैरिकं लाक्षा मालतिकलिका समा ।

व्रणशुक्रहरि वर्तिः शोणितस्य प्रसादनी ।।66।।

भै. र. नेत्ररोग 66-67

This reference is also found in bhaishajya ratnavali and says that this varti helps in regulation of retinal blood flow and restores the normalcy of retinal blood flow.[9]

4) Kalyanaka ghrita

कल्याणकघृते उत्पल प्रियङ्गु – मालतीकुसुमानि... ।।

सु. उ. 39/229-233

Malatikusuma has also been used as an ingredient in Kalyanaka Ghrita, a medication to treat Jeerna jwara (Chronic fever) as per reference of Sushrut Samhita Uttartantra.[10]

Rasapanchaka of Mallikapushpa

- **Rasa (Taste)-** Tikta (Bitter), Katu(Pungent)
- **Virya (Potency) –** Ushna(hot)
- **Vipaka –** Katu (Pungent)
- **Guna –** laghu, Sukshma, Snigdha, Shukravardhak
- **Doshaghnata –** Kapha Vatahara(Subsides kapha and vata dosha)
  Pittanashana – alleviates pitta dosha
- **Rogaghnata –** Cures Mukharoga (Diseases of mouth), Netraroga (Diseases of eye), Kushtha(Skin disorders), aruchi (Anorexia), Visha (Poison), Vrana (Posseses wound healing properties).

Botanical Description

Flower and budding stage Different stages of flowering of Jasminum Sambac

Plants of Arabian jasmine are mainly propagated by cuttings, layering and marcotting. They are mainly dicotyledonous species belonging to Oleaceae family.

It is a small evergreen vine or shrub reaching up to 0.5 – 3m (1.6 – 9.8ft) tall with glabrous leaves producing attractive white sweet-scented flowers in great profusion in hot season. Flowers are produced in clusters of 3-12 together at the end of branches, they have tubular corolla with 4-9 lobes. The flowers have strong aroma and bloom at night. The phyllotaxy of the leaves is opposite or in three whorls, ovate, shiny and dark green in colour. Stem is smooth, green, and cylindrical, with a diameter of up to 1 cm. Branches are slender, pubescent, and often twining.

Jasmine plants can easily grow in hot and humid weather during daytime and require low temperature at night.

Ethno medical usages & Description of Biological Activities of parts of Jasminum sambac

No.	Part of *Jasminum sambac Linn.*	Uses	Method of use
1.	**Flowers**	Lactifuge-suppress puerperal lactation	2 or 3 handful of flowers are taken and bruised and applied to breast & the secretion is arrested within 24 hours.
		Vasodilator	Flower extract of *Jasminum sambac Linn.*
		Sedative, antispasmodic	Used as tonic, aperient and emollient
	Flower Buds	In treatment of ulcers, vesicles, boils, skin diseases and eye disorder .	-
2.	**Leaves**	analgesic and anti-inflammatory	Topical gel made from extract of leaves of *Jasminum sambac Linn.*

		Used in indolent ulcers.	Dried leaves are soaked in water and made into a poultice.
		Used to treat ulcers, corns, expelling worms, regulating menstrual flow, cleaning kidney waste, inflammed and blood-shot eyes.	Juice of leaves of *Jasminum sambac Linn.*
		Antidiabetic activity	Ethyl acetate and water extract of leaves
3.	**Roots**	Anti-inflammatory	Root extract of *Jasminum Sambac Linn.*
		Antipyretic	Root extract of *Jasminum Sambac Linn.*
4.	**Essential oils**	Antimicrobial, antioxidant Antidepressant, anxiolytic, antiseptic, aphrodisiac, anti-spasmodic, cicatrizing	-
		Aromatherapy	In aroma oils, bath additives, perfumes, skincare, cosmetics.

For centuries this plant has been utilized in traditional medicine for its immense therapeutic properties. It has been employed to alleviate symptoms of depression, pain, and anxiety, as well as to reduce inflammation, prevent infection and promote relaxation. The flowers and leaves have decongestant and antipyretic properties. Various diseases like conjunctivitis, diarrhea, abdominal pain and dermatitis are treated with its flowers along with its roots and leaves. In Goa, roots of plants are used as emmenagogue.[11]

Phytoconstituents present in inflorescence of Jasminum sambac Linn.

Preliminary phytochemical analysis revealed that the flower of *J. sambac* contains antioxidants, coumarins, cardiac glycosides, essential oils, flavonoids, phenolics, saponins, and steroids, whereas alkaloids, anthraquinones, and tannins were not detected.

The phytochemicals from Jasminum sambac contain iridoidal glycosides, linalyl 6-O-malonyl-β-D-glucopyranoside, benzyl6-O-β-D-xylopyranosyl-β-D-glucopyranoside (β-primeveroside), 2-phenylethyl β-primeveroside, 2-phenylethyl 6-O-α-Lrhamnopyranosyl-β-D-glucopyranoside (β-rutinoside), dotriacontanoic acid, dotriacontanol, oleanolic acid, daucosterol, and hesperidin. The compounds isolated from leaves contain sambacosides A, E and F, and flowers contain molihuaside AE, sambaeoside A. The volatile constituents consist of benzyl acetate, indole, E-E-α-farnesene, Z-3-hexenyl benzoate, benzyl alcohol, linalool, and methyl anthranilate. The volatile organic compounds from flowers of J. sambac were cis-3- hexenyl acetate, linalool, (E)-β-ocimene, benzyl acetate, and (E, E)-α-farnesene were

determined using using solid phase microextraction fibers and Gas chromatography with Mass spectroscopy detection. Major constituents identified in essential oil were, eugenol, phenyl ethyl alcohol, geranial, citronellol, farnesol, geranyl acetate, 2-phenyl ethyl acetate, citrinyl acetate, citral (mixture of cis and trans) and benzyldehyde.[12]

Pharmacological Actions

1. **Flavonoids**

- **Hesperidin**, one of the prominent flavonoids found in *Jasminum sambac*, is known for its **anti-inflammatory** and **antioxidant** activities. Studies have shown that hesperidin plays a critical role in **reducing inflammation** by inhibiting inflammatory pathways. This makes it valuable in managing conditions like arthritis, muscle pain, and swelling.
- Flavonoids in general are known to possess **antioxidant** properties that can help reduce oxidative stress, which is linked to chronic diseases like cardiovascular disorders, diabetes, and cancer.

2. **Alkaloids**

- *Jasminum sambac* contains alkaloids that contribute to its **sedative** and **anxiolytic** properties. These alkaloids help in reducing symptoms of **anxiety** and **stress** by modulating neurotransmitters in the brain. This makes the plant useful in mental health treatments, such as for **depression** and **insomnia**.

3. **Essential Oils**

- The essential oils extracted from *Jasminum sambac* are highly prized for their **antibacterial**, **antiseptic**, **anti-inflammatory**, and **antioxidant** properties. These oils contain compounds such as **benzyl acetate**, **indole**, and **geraniol**, which are responsible for their therapeutic effects.
- **Antibacterial** properties: The essential oil is effective against a variety of bacterial pathogens, including those that cause **skin infections**, **respiratory tract infections**, and **gastrointestinal disorders**.
- **Anti-inflammatory** effects: Jasmine oil can help reduce inflammation, which makes it useful in managing **pain** and **swelling** caused by conditions like **arthritis** or **muscle soreness**.
- **Aphrodisiac**: The essential oil is traditionally used as a natural aphrodisiac, improving **sexual health** by stimulating **hormonal activity** and enhancing circulation.

- **Cicatrizing (Wound healing)**: Jasmine oil also promotes **wound healing**, making it useful for treating **cuts**, **bruises**, and **burns**.

4. Triterpenoids

- Triterpenoids, found in *Jasminum sambac*, have been shown to have **anti-inflammatory**, **antioxidant**, and **anticancer** effects. These compounds can inhibit the growth of cancer cells and reduce oxidative damage to tissues.
- Triterpenoids also contribute to the plant's **hepatoprotective** (liver-protecting) properties, providing support for detoxification processes and aiding in the treatment of **liver diseases**.

5. Saponins

- Saponins are known for their **antimicrobial** and **anti-inflammatory** properties. These compounds have shown promise in reducing the growth of **pathogenic bacteria** and **fungi**, making them useful in the treatment of **skin infections**, **wounds**, and **respiratory infections**.
- Saponins also have **immune-modulatory** effects, which means they can enhance the body's natural defense mechanisms.[13]

DISCUSSION

Mallikapushpa has been revered in traditional medicine systems across various cultures for its extensive therapeutic properties. For centuries, this plant has been utilized to address a wide range of health issues, from common ailments like pain and inflammation to more complex conditions such as anxiety and depression. The plant, particularly its flowers, leaves, and roots, offers a wealth of medicinal benefits, many of which have been validated by modern scientific research. The diverse uses of this plant in traditional medicine reflect its integral role in promoting health and well-being.

The role of Ayurvedic formulations containing Mallikapushpa are well-documented in classical texts. The combination of cooling, anti-inflammatory, and rejuvenating properties of Mallikapushpa makes it an invaluable component of Ayurvedic health management during the summer season. It not only supports the balance of *Pitta Dosha* but also offers effective treatments for eye health, demonstrating the synergy between Ayurveda's herbal wisdom and seasonal needs. Among its vast array of treatments, it places great importance on seasonal routines, called *Ritucharya*, which advise specific dietary and lifestyle practices tailored to

the changing needs of the body. In this context, the role of Ayurvedic formulations containing Mallikapushpa (flowers of *Jasminum sambac* Linn.) is significant, especially in the summer season (*Grishma Ritu*), where specific Panak formulations are used to balance the body's internal heat.

As the demand for natural remedies increases, these traditional formulations are seeing a resurgence, highlighting the relevance of ancient wisdom in modern-day health practices. *Mallikapushpa* is extensively mentioned in texts like the *Priya Nighantu, Raja nighantu, Kaiyyadeva nighantu* and *Ashtanga Hridayam* for its ophthalmic benefits, especially in the treatment of eye conditions arising from *Pitta-Vata* imbalances. The cooling and anti-inflammatory properties of Mallikapushpa flowers help rejuvenate the eyes, especially following therapeutic eye procedures like *Tarpana* (eye therapy) and *Putapaka*.

The plant's rich array of bioactive compounds, such as flavonoids, alkaloids, triterpenoids, and essential oils, work synergistically to provide a broad spectrum of healing effects. As scientific research continues to validate these traditional uses, *Jasminum sambac* is increasingly recognized as a valuable plant in both natural and conventional medicine. Its versatility and efficacy make it an important asset in the realm of holistic health and wellness. Ayurveda, the traditional system of medicine in india, considers various parts of plants, including flowers, for their potential health benefits. Mallikapushpa is one such infloroscence which is not explored to its fullest even after the classics quote its properties, therapeutic effects along with various formulations.

CONCLUSSION

Jasminum sambac Linn. is a remarkable plant with a rich history of use in traditional medicine, particularly for its therapeutic properties related to pain relief, inflammation reduction, and mental well-being. From its flowers, leaves, and roots to its essential oil, every part of the plant offers valuable medicinal benefits. Incorporating this versatile plant into contemporary healthcare practices holds significant potential, both as a therapeutic agent and as a valuable resource in the field of holistic health. Further studies are needed to validate its efficacies and safety in various diseases. Mallikapushpa as an inflorescence truly stands as testaments to the wonders of nature and marvels it bestows upon us.

REFERENCES

1. Dr. Anantaram Sharma, Sushruta samhita Vol. 1: Chaukhamba Surabharati Prakashan, 2015; Sutrasthana 46/286.
2. Prof. P.V. Sharma, Dhanwantari Nighantu, Chaukhamba Orientalia Publication Varanasi, 2008.
3. Chunekar K.C., Bhavaprakash Nighantu; Varanasi Chaukhamba Bharti Academy, 2010.
4. Pandit Narhari Commentary – Dr. Indradeo Tripathi, Raj Nighantu, Krishnadas academy Orientalia publications, 1982; First edition.
5. Chunekar K.C., Bhavaprakash Nighantu; Varanasi Chaukhamba Bharti Academy, 2010.
6. P.V. Sharma, Priya Nighatuh, Chaukhamba Surabharti Prakashan Varanasi, 1995; pg.72.
7. Tripathi B., Ashtangahridayam, Chaukhamba Orientalia Prakashan, Varanasi, 2015; Sutrasthana 24/22.
8. Kshem Sharma's Kshem Kutuhal, Indian Institution of Ayurveda and integrative Medicine, FRLHT, Bangalore, Edition 2009; Utsava 12/29, 30.
9. Dr. Brahmanand Tripathi, Bhaishajyaratnavali Netrarogadhikar; Fifth edition, 2015; Pg.1000.
10. Dr. Anantaram Sharma, Sushruta samhita Vol. 4; Chaukhamba Surabharati Prakashan, 2015; Uttartantra 46/286.
11. Mourya, N. M. N., Bhopte, D. B. D., & Sagar, R. S. R. (2017). A review on Jasminum sambac: A potential medicinal plant. *International Journal of Indigenous Herbs and Drugs*, 13-16.
12. Kunhachan, P., Banchonglikitkul, C., Kajsongkram, T., Khayungarnnawee, A., & Leelamanit, W. (2012). Chemical composition, toxicity and vasodilatation effect of the flowers extract of Jasminum sambac (L.) Ait. "G. Duke of Tuscany". *Evidence-Based Complementary and Alternative Medicine*, *2012*(1): 471312.
13. Widowati, W., Janeva, W., Nadya, S., Amalia, A., Arumwardana, S., Kusuma, H. S. W., & Arinta, Y. (2018). Antioxidant and antiaging activities of Jasminum sambac extract, and its compounds. *Journal of Reports in Pharmaceutical Sciences*, *7*(3): 270-285.
14. Sengar, N., Joshi, A., Prasad, S. K., & Hemalatha, S. (2015). Anti-inflammatory, analgesic and anti-pyretic activities of standardized root extract of Jasminum sambac. *Journal of ethnopharmacology*, *160*: 140-148.
15. Tharakan, S. T. (2021). Phytochemical and pharmacological properties of five different species of Jasminum. *Plant Arch*, *21*(2): 126-136.
16. Kalaiselvi, M., & Kalaivani, K. (2011). Phytochemical analysis and antilipid peroxidative effect of Jasminum sambac (L.) Ait oleaceae. *Pharmacologyonline*, *1*: 38-43.