

Role of Jambu Patra Kwatha in the Management of Mukhapaka with Special Reference to Stomatitis: A Review Article

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Abstract: *Mukhapaka is a commonly encountered disorder of the oral cavity described in Ayurvedic literature and is characterized by painful lesions or ulcers involving the oral mucosa. Clinically, it may be correlated with conditions such as stomatitis and recurrent aphthous ulceration, although the correlation is not exact. The condition can interfere with eating, swallowing, speech and routine activities. Ayurveda describes Mukhapaka in relation to Dosha predominance, particularly Pitta and Rakta involvement, and recommends local therapeutic measures including Gandusha and Kavala.*

Jambu (Syzygium cumini (L.) Skeels), commonly known as Jamun, possesses Kashaya and Madhura predominance with Sheeta Virya and is traditionally described as having Pittashamaka, Vranaghna and Varnya properties. Jambu Patra Kwatha administered as Gandusha may therefore be useful in Mukhapaka. An observational study specifically evaluating Jambu Patra Kwatha Gandusha reported improvement in the signs and symptoms of Mukhapaka and suggested a beneficial role in preventing recurrence. Contemporary experimental and dental literature also reports antimicrobial, antioxidant and potentially anti-inflammatory activities of S. cumini, providing a possible pharmacological basis for its use in oral disorders. This review discusses the Ayurvedic basis, pharmacological rationale and available clinical evidence for Jambu Patra Kwatha in the management of Mukhapaka with special reference to stomatitis.

Keywords: Jambu Patra, Syzygium cumini, Jambu Kwatha, Mukhapaka, Stomatitis, Gandusha, Kavala, Oral ulcer, Ayurveda.

I. INTRODUCTION

The oral cavity is continuously exposed to mechanical, chemical and microbial influences. Inflammation and ulceration of the oral mucosa may produce pain, burning sensation, difficulty in eating and impaired oral function. Stomatitis represents a broad group of inflammatory conditions affecting the oral mucosa.

In Ayurveda, Mukhapaka is described among the disorders of the oral cavity. It is characterized by painful lesions or ulceration within the oral cavity and may involve structures such as the lips, tongue, buccal mucosa, gingiva and palate. The Ayurvedic description of Mukhapaka has similarities with certain contemporary clinical presentations of stomatitis and recurrent aphthous ulceration.

Local therapies such as Gandusha and Kavala are important components of Ayurvedic oral healthcare. Jambu Patra Kwatha Gandusha is one such intervention described for oral disorders. An observational clinical study evaluated this approach specifically in Mukhapaka and reported significant improvement in clinical features.



II. AIM

To review the Ayurvedic concept and available scientific evidence regarding the role of Jambu Patra Kwatha in the management of Mukhapaka, with special reference to stomatitis.

III. OBJECTIVES

1. To review the Ayurvedic concept of Mukhapaka.
2. To discuss the clinical correlation of Mukhapaka with stomatitis.
3. To review the Ayurvedic properties of Jambu Patra.
4. To understand the rationale of Jambu Patra Kwatha Gandusha.
5. To evaluate available clinical and experimental evidence.
6. To identify areas requiring further clinical research.

IV. MATERIALS AND METHODS

This review was based on available Ayurvedic literature and published scientific literature concerning Mukhapaka, Gandusha, Jambu (*Syzygium cumini*) and oral health. Particular attention was given to the published observational study "Observational Study on the Role of Gandusha (Jambu Patra Kwatha) in the Management of Mukhapaka", published in the Journal of AYUSH in 2014. Contemporary literature concerning the antimicrobial, antioxidant and oral-health-related properties of *Syzygium cumini* was also reviewed.

V. AYURVEDIC CONCEPT OF MUKHAPAKA

Mukhapaka may be understood as a disorder involving inflammatory and ulcerative changes of the oral mucosa. The published clinical study describes Mukhapaka as a Pittaja Nanatmaja and Rakta Pradoshaja Vikara, characterized by painful lesions within the oral cavity.

Common clinical features

The manifestations may include:

- Pain in the oral cavity
- Burning sensation
- Redness and inflammation
- Ulceration
- Difficulty in mastication
- Difficulty in swallowing
- Altered taste
- Recurrent episodes in susceptible individuals

These manifestations have clinical overlap with several forms of stomatitis and recurrent aphthous ulceration.

VI. STOMATITIS: CONTEMPORARY PERSPECTIVE

Stomatitis refers broadly to inflammation of the oral mucosa. Depending upon the cause, it may be associated with infection, trauma, nutritional deficiencies, immune-mediated conditions, medications or systemic disease.

Recurrent aphthous stomatitis is characterized by recurrent painful oral ulceration, particularly involving non-keratinized oral mucosa. Because Mukhapaka encompasses a broader Ayurvedic clinical concept, the correlation with stomatitis should be considered clinical and conceptual rather than a one-to-one diagnostic equivalence.

This distinction is important when interpreting Ayurvedic clinical studies.



VII. JAMBU PATRA – AYURVEDIC PROFILE

Jambu is botanically identified as *Syzygium cumini* (L.) Skeels and is commonly known as Jamun.

The published Ayurvedic study describes the properties of Jambu as:

Latin name	<i>Syzygium cumini</i>
Synonyms	Phalendra , Surabhipatra
Rasa	Madhur, Kashaya, Amla
Virya	Shita
Vipaka	Katu
Guna	Laghu, ruksha
Action	Kapha-pittahara ,Sangrahi, Rochan, pachaniya ,kanthya , vranashodhan , vranaropan, Dahaprashamana
Upayuktang	Patra, phal, twak

The study further discusses properties relevant to oral lesions, including Vranaghna and Varnya actions.

VIII. RATIONALE OF JAMBU PATRA KWATHA IN MUKHAPAKA

The therapeutic rationale can be understood from both Ayurvedic and contemporary perspectives.

8.1 Pittashamana

Mukhapaka with Pitta predominance is associated with inflammatory manifestations such as burning, redness and ulceration. The Sheeta Virya and Pittashamaka nature attributed to Jambu may help counteract these manifestations.

8.2 Kashaya Rasa

Kashaya Rasa is traditionally associated with astringent and stabilizing effects on tissues. This may be particularly relevant in oral lesions accompanied by inflammation and mucosal discharge.

8.3 Vranaghna action

The traditional description of Jambu includes Vranaghna activity, making it conceptually relevant to painful ulcerative lesions of the oral mucosa.

8.4 Gandusha as local therapy

Gandusha provides prolonged local contact of the medicinal preparation with oral tissues. In the published study, Jambu Patra Kwatha was specifically administered as Gandusha for Mukhapaka.

IX. CONTEMPORARY PHARMACOLOGICAL EVIDENCE

Modern studies provide preliminary evidence supporting biological activities of *S. cumini* relevant to oral health.

A systematic literature review focusing on dental applications reported antibacterial and antifungal activity of extracts obtained from different parts of *S. cumini* against microorganisms associated with oral disease.

Experimental work on *S. cumini* leaves has demonstrated antioxidant and antimicrobial activity, with phenolic compounds and flavonoids among the phytochemical constituents investigated.

A randomized controlled dental study evaluating a 0.4% *S. cumini* leaf extract mouth rinse reported antibacterial effects against *Streptococcus mutans*, suggesting potential relevance of the leaves for oral-health applications.

More recent experimental work has also reported antibacterial, antifungal and antioxidant activity of aqueous *S. cumini* leaf extract.

These findings provide biological plausibility, but they should not be interpreted as proof that Jambu Patra Kwatha treats every form of stomatitis.

X. CLINICAL EVIDENCE

The most directly relevant clinical evidence identified is the observational study by Shukla, Patil and Patil, published in 2014.



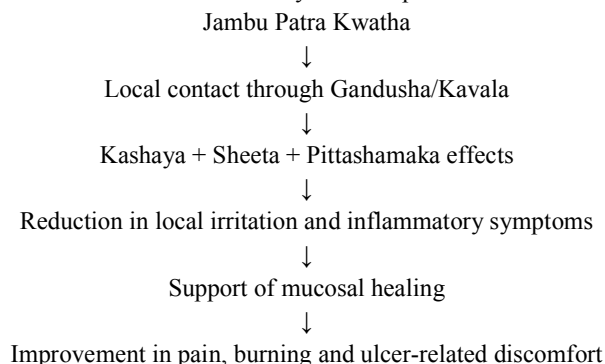
The study evaluated Jambu Patra Kwatha Gandusha as an Upakrama in Mukhapaka. The authors reported significant improvement in the assessed signs and symptoms and concluded that Jambu Patra Kwatha Gandusha was beneficial in Mukhapaka and may have a role in reducing recurrence.

A separate clinical-trial registration also indicates investigation of Jambu Patra Kwatha/Kavala in Pittaja Mukhapaka (stomatitis), comparing it with Bhumyamalaki Siddha Payah Kavala. The registered study was designed to assess outcomes over a short treatment and follow-up period.

However, the available clinical evidence remains limited, and larger, well-designed randomized controlled trials are required before firm therapeutic conclusions can be made.

XI. POSSIBLE MECHANISM OF ACTION

The possible therapeutic action of Jambu Patra Kwatha may be conceptualized as follows:



Contemporary evidence additionally suggests that *S. cumini* contains bioactive constituents associated with antimicrobial and antioxidant activities.

XII. ADVANTAGES OF JAMBU PATRA KWATHA

Potential advantages include:

- Simple local administration
- Traditional basis in Ayurvedic oral care
- Direct contact with oral mucosa
- Potential astringent and soothing effects
- Preliminary antimicrobial evidence
- Preliminary antioxidant evidence
- Low-cost and accessible plant material
- Potential usefulness as an adjunctive oral-care intervention

XIII. LIMITATIONS OF CURRENT EVIDENCE

Despite promising observations, several limitations must be acknowledged:

1. Direct clinical evidence specifically for stomatitis is limited.
2. The available Mukhapaka study is observational rather than a large randomized controlled trial.
3. Standardization of Jambu leaf preparation and concentration requires further study.
4. Different extraction methods may produce different phytochemical profiles.
5. The exact mechanism of mucosal healing remains incompletely established.
6. Mukhapaka and stomatitis are not completely synonymous clinical entities.
7. Long-term safety and recurrence-prevention effects require stronger evidence.



Therefore, Jambu Patra Kwatha should currently be regarded as a promising traditional adjunct, rather than an established replacement for appropriate diagnosis and conventional treatment of oral disease.

XIV. DISCUSSION

The Ayurvedic rationale for Jambu Patra Kwatha in Mukhapaka is based primarily on its attributed Kashaya Rasa, Sheeta Virya and Pittashamaka action, together with Vranaghna properties. Gandusha allows the preparation to remain in contact with the oral mucosa and therefore represents a logical local therapeutic approach.

The observational study directly evaluating Jambu Patra Kwatha Gandusha provides preliminary clinical support, reporting improvement in Mukhapaka manifestations.

Modern pharmacological literature adds another dimension. Extracts of *Syzygium cumini* have demonstrated antimicrobial and antioxidant activity, while dental research has investigated leaf preparations as mouth-rinse agents.

Thus, the traditional Ayurvedic rationale and preliminary biomedical evidence appear complementary. Nevertheless, laboratory antimicrobial activity cannot automatically be equated with clinical efficacy in stomatitis. Future research should use standardized preparations, validated diagnostic criteria, appropriate control groups and objective outcome measures.

XV. FUTURE SCOPE OF RESEARCH

Future studies should evaluate:

- Standardized Jambu Patra Kwatha preparation.
- Dose and concentration standardization.
- Duration and frequency of Gandusha/Kavala.
- Pain and ulcer-healing scores.
- Time required for complete mucosal healing.
- Recurrence rate.
- Oral microbial changes.
- Comparison with established mouth-rinse therapies.
- Safety and tolerability.
- Randomized controlled clinical trials with adequate sample size.

XIV. CONCLUSION

Jambu Patra Kwatha represents a potentially useful Ayurvedic local intervention in the management of Mukhapaka, particularly when viewed through the traditional concepts of Pitta involvement, Kashaya Rasa, Sheeta Virya and Vranaghna action. The available observational evidence suggests improvement in clinical manifestations of Mukhapaka following Jambu Patra Kwatha Gandusha.

Contemporary evidence demonstrates antimicrobial and antioxidant properties of *Syzygium cumini* and provides a plausible biological basis for further investigation in oral disorders. However, the current evidence base is insufficient to establish Jambu Patra Kwatha as a definitive treatment for all forms of stomatitis. Well-designed clinical trials are required to establish its efficacy, optimal preparation, dosage, safety and role in preventing recurrence.

In conclusion, Jambu Patra Kwatha Gandusha may be considered a promising Ayurvedic adjunct in Mukhapaka/stomatitis, warranting further systematic clinical evaluation.

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