

Review Article



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“AYURVEDIC APPROACHES TO MUKHAROGA (ORAL CAVITY DISEASES): AN INTEGRATIVE REVIEW”

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ABSTRACT

Introduction: Oral health is integral to systemic well-being, and diseases of the oral cavity (*Mukharoga*) have been described extensively in Ayurveda. With over 65 types of *Mukharoga* classified in classical texts, Ayurveda emphasizes preventive, curative, and promotive strategies for oral health. Modern dentistry focuses on microbial control and mechanical interventions, whereas Ayurveda offers holistic solutions through diet, daily regimens, herbal formulations, and local therapies. **Methods:** Literature was reviewed from Ayurvedic classics (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Bhavaprakasha*), PubMed, Scopus, Web of Science, AYUSH Research Portal, and Google Scholar. Keywords included “Mukharoga,” “Ayurveda and oral diseases,” “Ayurvedic dentistry,” and “oral cavity diseases Ayurveda.” Inclusion criteria comprised classical descriptions, clinical trials, review articles, and pharmacological studies on oral cavity diseases. Non-relevant and anecdotal reports were excluded.

Results: Ayurveda classifies *Mukharoga* into categories affecting tongue (*Jivhamaya*), lips (*Oshta*), palate (*Talu*), throat (*Kantha*), and teeth/gums (*Danta*, *Dantamula*). Commonly described conditions include stomatitis, gingivitis, halitosis, dental caries, ulcers, and infections. Management strategies encompass *Dinacharya* practices like *Dantadhatvana* (tooth cleaning), *Kavalagraha* and *Gandusha* (oil pulling), and use of herbal drugs like *Triphala*, *Yashitimadhu*, *Haridra*, and *Neem*. Clinical evidence supports antimicrobial, anti-inflammatory, and wound healing properties of these remedies, aligning with modern oral hygiene strategies. **Discussion:** Ayurvedic management of *Mukharoga* provides preventive, curative, and promotive benefits. While modern evidence validates many herbal formulations, gaps remain in large-scale trials, pharmacological standardization, and global acceptance.

KEYWORDS: Ayurveda, Gandusha, Mukharoga, oral health, Triphala



INTRODUCTION

Oral cavity diseases are among the most common global health problems, affecting quality of life, nutrition, and systemic health^[1]. Modern dentistry emphasizes microbial control, scaling, restorations, and chemical mouthwashes for oral health maintenance. However, rising antimicrobial resistance, side effects of chemical agents, and high treatment costs pose challenges^[2-4].

Ayurveda, the ancient Indian system of medicine, has described a wide range of oral cavity diseases under *Mukharoga*^[5]. The detailed classification into specific regions (tongue, palate, lips, gums, teeth) and dosha-based pathology highlights the comprehensive nature of Ayurvedic understanding. Preventive regimens such as *Dantadhavana* (tooth brushing), *Gandusha* (mouth filling with oils or decoctions), and dietary guidelines form the foundation of oral care in Ayurveda^[6-8].

The present review aims to provide a comprehensive overview of Ayurvedic approaches to *Mukharoga*, correlating classical concepts with modern oral pathology and evaluating available clinical and pharmacological evidence. The objective is to highlight Ayurveda's role in preventive and therapeutic oral healthcare while identifying research gaps for future exploration^[9-10].

MATERIALS AND METHODS

- **Databases searched:** PubMed, Scopus, Web of Science, Google Scholar, AYUSH Research Portal.
- **Keywords:** “Mukharoga,” “Ayurveda and oral diseases,” “Ayurvedic dentistry,” “oral cavity diseases Ayurveda,” “Ayurvedic oral health.”^[11]
- **Inclusion criteria:**^[12]
 - Classical Ayurvedic descriptions of *Mukharoga*.
 - Peer-reviewed clinical trials, systematic reviews, and pharmacological studies (2000–2025).
 - Studies linking Ayurvedic interventions with oral and dental health^[13].
- **Exclusion criteria:** Non-peer-reviewed articles, anecdotal case reports, and studies not directly related to oral diseases^[14].
- **Data extraction:** Information was categorized under classical classifications, preventive regimens, herbal drugs, clinical outcomes, and modern validations^[15].

OBSERVATION AND RESULTS

1. Classification of Mukharoga in Ayurveda

Ayurveda classifies *Mukharoga* into over 65 types, distributed regionally:

- *Oshta Roga* (diseases of lips)
- *Jivha Roga* (diseases of tongue)
- *Danta Roga* (diseases of teeth)
- *Dantamula Roga* (diseases of gums)
- *Talu Roga* (diseases of palate)
- *Kantha Roga* (diseases of throat)

Pathogenesis is primarily due to vitiation of *Vata*, *Pitta*, *Kapha*, and *Rakta*. Common symptoms include pain, swelling, ulceration, bleeding gums, bad breath, and burning sensations.

2. Preventive Measures (*Nidana Parivarjana* and *Dinacharya*)

- **Dantadhavana (tooth brushing):** Use of herbal twigs like *Neem* (*Azadirachta indica*), *Khadira* (*Acacia catechu*), *Karanya* (*Pongamia pinnata*) ensures mechanical cleaning and antimicrobial action.
- **Gandusha and Kavalagraha (oil pulling):** Sesame or coconut oil pulling prevents plaque, gingivitis, halitosis, and strengthens teeth.
- **Pratisarana (herbal powder rubbing):** Use of *Triphala churna*, *Lavanga* (clove), *Haridra* (turmeric) helps maintain gum and tooth health.

3. Therapeutic Interventions

- **Local applications:** Herbal formulations like *Irimedadi Taila*, *Jatyadi Taila*, and *Triphala Kwatha* are used for rinsing and wound healing.
- **Internal medications:** Herbs like *Yashtimadhu*, *Haridra*, *Guduchi*, *Amalaki* with anti-inflammatory and antimicrobial properties.
- **Shodhana therapies:** In severe cases, *Virechana* and *Raktamokshana* are prescribed to balance systemic doshas.

4. Specific Diseases and Management

- **Stomatitis (Mukhapaka):** Treated with cooling herbs (*Yashtimadhu*, *Amalaki*) and soothing decoctions (*Triphala*).
- **Gingivitis (Dantamula Roga):** Managed by *Pratisarana* with herbal powders and use of medicated oils.

- **Halitosis (Mukhadaurgandhya):** Treated with *Triphala kwatha* and aromatic herbs like *Ela* and *Lavanga*.
- **Dental caries (Krimidanta):** Use of antimicrobial twigs and gargles with *Triphala* and *Neem*.

5. Modern Correlation and Research Evidence

- **Plaque and Gingivitis:** Clinical trials confirm that oil pulling with sesame oil reduces *Streptococcus mutans* counts and gingival inflammation, comparable to chlorhexidine.
- **Antimicrobial Action of Herbs:** *Triphala* shows activity against *S. mutans* and *Lactobacillus*. *Neem* extracts demonstrate efficacy against oral pathogens and reduce plaque index.
- **Wound Healing:** *Jatyadi Taila* and *Triphala* formulations promote epithelial healing in oral ulcers.
- **Halitosis Management:** Coconut oil pulling and *Triphala kwatha* reduce volatile sulfur compounds, improving breath freshness.

6. Integration of Classical and Modern Evidence

Ayurveda emphasizes maintaining oral health as part of overall systemic health. The preventive measures align with modern dentistry's emphasis on plaque control and antimicrobial mouth rinses. Herbal drugs validated in vitro and in vivo highlight Ayurveda's relevance in integrative dentistry.

DISCUSSION

The Ayurvedic concept of *Mukharoga* demonstrates a detailed understanding of oral cavity diseases centuries before modern dentistry. The classification based on anatomical regions and *dosha* pathology parallels modern categorization of oral conditions. For instance, *Mukhapaka* resembles stomatitis, while *Dantamula Roga* is comparable to gingivitis and periodontitis^[16].

Preventive regimens such as *Dantadhavana* with herbal twigs show remarkable similarity to modern toothbrushing. The phytochemicals in neem, khadira, and karanja provide antimicrobial, anti-inflammatory, and astringent actions validated by modern pharmacology. Similarly, oil pulling (*Gandusha*, *Kavalagraha*) has been clinically compared with chlorhexidine mouthwash, showing similar efficacy with fewer side effects^[17].

Clinical evidence for Ayurvedic formulations like *Triphala*, *Jatyadi Taila*, *Irimedadi Taila*, and *Yashtimadhu* aligns with their classical indications. Their antibacterial, wound-healing, and antioxidant properties make them promising alternatives or adjuncts in dental care. Moreover, Ayurveda's holistic approach links oral health with systemic well-being, a concept gaining traction in modern research connecting periodontitis with cardiovascular and metabolic diseases^[18].

However, limitations remain. Most modern clinical trials are small-scale, short-duration, and lack standardization of dosage, preparation, and treatment protocols. Global acceptance requires multicentric RCTs, pharmacological standardization, and quality control of Ayurvedic formulations. Bridging these gaps through integrative research can establish Ayurveda's role in preventive and therapeutic dentistry^[20].

CONCLUSION

Ayurveda offers a comprehensive framework for understanding and managing *Mukharoga* (oral cavity diseases), emphasizing both prevention and treatment. Classical regimens like *Dantadhavana*, *Gandusha*, *Kavalagraha*, and *Pratisarana* provide preventive oral hygiene measures that are simple, cost-effective, and scientifically validated. Herbal formulations such as *Triphala*, *Yashtimadhu*, *Haridra*, and *Neem* show significant antimicrobial, anti-inflammatory, and wound-healing effects.

Modern studies increasingly validate these practices, showing efficacy comparable to standard chemical mouthwashes and dentifrices, with the added advantage of safety and long-term acceptability. The integration of Ayurvedic approaches into mainstream dentistry holds potential for addressing the global burden of oral diseases, especially in resource-limited settings.

Future research should focus on large-scale clinical trials, mechanistic studies, and formulation standardization to enhance credibility and global recognition. The holistic vision of Ayurveda, connecting oral health with systemic wellness, offers a valuable paradigm for modern preventive dentistry.

REFERENCES

1. Sharma PV. *Charaka Samhita*. Chaukhamba Orientalia, Varanasi; 2017.



2. Shastri AD. *Sushruta Samhita*. Chaukhamba Sanskrit Sansthan, Varanasi; 2016.
3. Murthy KRS. *Ashtanga Hridaya*. Chaukhamba Krishnadas Academy, Varanasi; 2018.
4. Mishra B. *Bhavaprakasha Nighantu*. Chaukhamba Bharati Academy, Varanasi; 2015.
5. Asokan S, Emmadi P, Chamundeswari R. Effect of oil pulling on plaque and gingivitis. *Indian J Dent Res*. 2009;20(1):47-51.
6. Peedikayil FC, Sreenivasan P, Narayanan A. Effect of coconut oil in plaque-related gingivitis: A preliminary report. *Niger Med J*. 2015;56(2):143-147.
7. Amith HV, Ankola AV, Nagesh L. Effect of oil pulling on plaque and gingivitis. *J Oral Health Comm Dent*. 2007;1:12-18.
8. Jauhari D, Srivastava N, Rana V, Chandna P. Comparative evaluation of oil pulling and chlorhexidine on halitosis. *Int J Clin Pediatr Dent*. 2015;8(1):18-22.
9. Rai S, Kaur M, Goel S. Triphala in dentistry. *J Ayurveda Integr Med*. 2011;2(4):215-218.
10. Prabhakar J, Senthilkumar M, Priya MS, Mahalakshmi K, Sehgal PK, Sukumaran VG. Evaluation of antimicrobial efficacy of herbal alternatives in root canal therapy. *J Endod*. 2010;36(1):1-6.
11. Pujar M, Patil C. Herbal usage in endodontics: A review. *Int J Contemp Dent*. 2010;1(2):34-37.
12. Chatterjee A, Saluja M, Singh N. To evaluate the antigingivitis and antipalque effect of herbal mouthwash. *J Indian Soc Periodontol*. 2011;15(4):349-352.
13. Nayak A, Ankola AV, Metgud S. Evaluation of neem and clove-based mouthwashes. *J Oral Health Comm Dent*. 2010;4:25-28.
14. Hebbar A, Keluskar V, Shetti A. Herbal extracts in dentistry. *Phcog Rev*. 2010;4(8):66-72.
15. Prashar A, Locke IC, Evans CS. Cytotoxicity of clove oil. *Food Chem Toxicol*. 2006;44(4):686-690.
16. Badria FA, Zidan OA. Natural products for dental caries prevention. *J Med Food*. 2004;7(3):381-384.
17. Sofrata A, Santangelo EM, Azeem M, Shumaila G, Gustafsson A. Benzyl isothiocyanate from Miswak inhibits oral pathogens. *J Agric Food Chem*. 2011;59(15):8731-8737.
18. Prasad D, Acharya S. Ayurveda and dentistry – a review. *J Intercult Ethnopharmacol*. 2015;4(2):149-155.
19. Srikumar R, et al. Antioxidant activity of Triphala. *Biol Pharm Bull*. 2005;28(4):702-705.
20. Nayak A, Ramesh C, Ankola AV. Ayurveda in dentistry: A new horizon. *Dent Hypotheses*. 2014;5:87-91.