

## Review Article

# Management of Oral Health through Ayurvedic Methods

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## Abstract

Ayurveda is an ancient science based on holistic therapeutic methods and believes that dental problems can be treated by balancing the three doshas of the human body- the vata, the pitha and thekapha. Several therapies such as diet, life style modifications, medications and therapeutic procedures including oil pulling, salt water mixture, turmeric etc. can be widely used for strengthening of teeth, gums and jaw, prevention of pain, tooth decay, halitosis, healing of socket and many other periodontal diseases. The botanicals in the ayurvedic material medica (dravyaguna) have proved to be safe and effective through several hundred to several thousand years of use. The present scientific evidence based view is focused on possible role of ayurveda in the management of dental defects as it is a holistic system of medicine.

**Keywords:** Ayurveda; Holistic; Herbal; Oral diseases; Treatment; Management

## Introduction

Oral disease is a major health problem worldwide [1]. The global need for ayurvedic alternative prevention and treatment options are safe, effective, economical and practicable. Currently many pathogens have developed resistance to currently used antibiotics and chemotherapeutics and opportunistic infections in immune compromised individuals [2,3]. Despite several chemical agents commercially available, can alter oral microbiota and have undesirable side effect such as vomiting, diarrhea and tooth staining. Ayurvedic treatment is aimed at patient as an organic whole and treatment consists of salubrious use of drugs, diets and certain practices. Approximately around 1250 Indian medicinal plants are formulated to receive beneficial measures according to ayurvedic ethnicity [4]. It has been well documented that medicinal plant confers considerable antibacterial property against various microorganisms in eluding bacteria responsible for dental caries [5-11].

## Ayurvedic Herbs for Various Oral Healths Related Problems

They include Clove Oil (*Syzygium aromaticum*), Aloe (*Aloe barbadensis*), Pepper (*Piper nigrum*), Coriander (*Coriandrum*), Eucalyptus (*Eucalyptus globules*), Turmeric (*Curcuma longa*), Green Tea (*Camellia sinensis*), Onion (*Allium cepa*), Papaya (*Carica papaya*), Potato (*Solanum tuberosum*), Garlic (*Allium sativum*), Honey (*Apis mellifera*), Neem (*Azadirachta indica*), Chewing stick, Lemon (*Citrus*), Olive oil (*Olea europaea*), Ginger (*Zingiber officinale*), etc. Nowadays there is a renewed interest in use of various ayurvedic preparations for oral and dental health. Various plants and natural products are used for pharmacological applications mainly in wound healing, Anti-inflammatory, Antimicrobial, Antioxidant properties etc [12-14], Various other studies found that herbal tooth paste and gum therapy produced statistically significant differences in receding plaque and stain, thus reducing gingivitis and gingival bleeding. The efficacy of a herbal Mouth rinse to reduce gingival inflammation was found by Pistorius et al [15].

## Turmeric (Curcuma longa)

In Ayurveda its use is recommended for various medical indications like Wound healing, Nausea, Indigestion, Inflammation, Liver diseases and Improving skin complexion [16,17]. The Orange pulp present with the rhizome constitutes the source of turmeric medicinal power [18]. The components of turmeric are named as curcuminoids. For centuries Curcuminoids has been extensively used in ayurvedic medicine as it is a nontoxic and its therapeutic properties.

## Recurrent Aphthous Stomatitis

Recurrent aphthous stomatitis is an inflammatory condition of unknown etiology. Patients who used conventional antiseptic gel, the lesion healed only after a period of time. Patient used Curcumin oil reported that ulcers healed earlier. There was also early reduction in pain [19].

## Tongue Scraping

Ayurveda strongly recommends the usage of gold, Silver or copper tongue cleaner for scraping the tongue. Tongue scraping stimulates the reflex points of the tongue, helps remove bad odour, Improves the sense of tongue and stimulates the secretion of digestive enzymes.

## Mustard Oil (Brassica nigra)

Basically it consists of fatty acids, oleic acid, uric acid and it has an Antioxidant, Antibacterial and Antimicrobial property which helps in prevention of periodontal disease [20]. Massaging with mustard oil will stimulate blood circulation and restore health of gingiva.

## Garlic (Allium Sativum)

Garlic can be effective in relation to the pain of tooth due to the Allicin-a compound with powerful antibiotic effect. ie it acts as a relaxative when crushed and applied [21].

## Eucalyptus (*Eucalyptus Globules*)

Recent studies found that Eucalyptus extract chewing gum has a significant effect on plaque activity, gingival index, bleeding on probing and periodontal depth probing.

## Pomegranate (*Punica Granatum*)

Topical Application of Pomegranate preparations have been found to be very effective for controlling Oral inflammation as well as bacterial and fungal counts in periodontal diseases. Pomegranate extracts helps to scavenge free radicals and to decrease macrophage oxidative stress and lipid peroxidation in animals thereby increasing plasma antioxidant capacity in elderly humans [22].

## Honey (*Apis Mellifera*)

Many studies have shown that honey has Antibacterial action in vitro and clinical case study has shown that application of honey to severely infected cutaneous wounds is capable of clearing wound infection and healing. The probable mechanism of action is by altering the chemical pH and osmotic effects which aid in its antibacterial action. Research has also indicated that honey has high anti-inflammatory activity and stimulates immune responses. It can also be used for treatment of various oral ulcerative conditions.

## Aloe Vera (*Aloe Barbadensis*)

Its plant leaves are used as herbal medicine. Recent studies on the gel of aloe vera leaves have shown that it is effective for the treatment of inflammatory diseases, including healing of different types of wounds.

## Herbal Sticks

Chewing on fresh stem from neem tree is the most popular way to combat tooth decay and keep your oral health intact. The stem should be small, soft and without leaves. Neem is extremely preferable for pitta, kaphadosha and licorice is good for vatadosha. Chewing the herbal stems that has antibacterial effects can prevent teeth from plaques.

## Oil Pulling (*Gandusha*)

Oil pulling is a practice that involves swishing oil in the mouth for oral and systemic health benefits. Oil such as Sunflower, Sesame seed and coconut oil are very popular. However sesame seed oil is the best of all for oral health.

## Gargle with Salt (*Gandusha*)

Gargling involves filling the mouth with comfortable amount of salt water so that you can close your mouth and create a motion by a stream of air from the lungs. It is advisable to add Fennel or peppermint to salt water before gargling. Salt added with lukewarm water is an excellent short term treatment for toothache, Gingivitis. Salt is not only a natural disinfectant, but also removes any swelling from the tissue

## Clove Oil (*Syzygium Aromaticum*)

Clove is one of the most important ingredients for treating dental and oral health problems. It is used in many oral products like toothpaste, mouthwashes and medications. Clove is rich in

minerals like Calcium, Hydrochloric acid, Iron, Phosphorus, Sodium, Potassium and Vit A & Vit C. The antimicrobial and antiseptic properties are useful in treating Cavities, bleeding gums, tooth aches, bad breath, Sore gum and Mouth ulcers.

## Amla (*Phyllanthus Emblica, Gooseberry*)

An ayurvedic extract is used to reduce cavity and plaque. It has the ability to rebuild the oral health. This helps in healing and development of contaminated tissues.

## Olive Oil (*Oleaeuropaea*)

Olive oil a natural plant extract is widely used for treating periodontal diseases. Swishing of oil in the mouth for oral and systemic benefits is an ancient household method. Oil pulling is mentioned in the ayurveda text also [23].

## Jasmine (*Jasminum*)

The leaves of *Jasminum Grandiflorum* are used in the treatment of Odontalgia, periodontitis, ulcerative stomatitis, Skin diseases, Ulcers etc. Antioxidant property is responsible for anti ulcerogenic activity of the extract [24].

## Conclusion

These natural products are effective medications and can be used for the treatment of Oral diseases. These are cost effective and early available remedies which are being practiced in ancient times. Natural disinfectants like oil and salts are also effective antimicrobial agents. Natural plant product turmeric is also considered as a safe, nontoxic and effective herb with enormous therapeutic properties. Oil pulling and Curcumin holds a high place in ayurvedic medicine.

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