

## AYURVEDIC ROUTINES TO MAINTAIN ORAL HEALTH AND PREVENT COMMON ORAL DISEASES

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### ABSTRACT

Oral health is integral to general well-being and relates to the quality of life. Oral health has long been neglected in global health, but many oral diseases can be prevented and treated with cost-effective measures. The most common oral diseases are dental caries (Tooth decay), severe gum disease, tooth loss, and oral cancers. Untreated dental caries is the single most common condition globally, affecting an estimated 2.5 billion people. Severe gum disease – a major cause of total tooth loss – is estimated to affect 1 billion people worldwide. About 380000 new cases of oral cancers are diagnosed every year. However, standard Western medicine has had limited success in preventing gum disease and treating various oral diseases. Here comes the importance of traditional systems of medicine like Ayurveda where natural phytochemicals isolated from plants are used and considered good alternatives to synthetic chemicals. The medicinal plants used in Ayurveda and their methods of use have been proven to be safe and effective, through thousands of years of use. According to the father of

Surgery Acharya Sushruta, 65 varieties of oral diseases can arise in seven anatomic locations- 08 on the lips, 15 on the gums, 08 in connection with the teeth, 05 on the tongue, 09 on the palate, 17 in the oropharynx and 03 in a generalized form. Ayurveda Acharyas has explained its preventive measures in general and the treatment for curable oral diseases (out of 65 oral diseases, 19 are incurable) in particular. The exploration and the practice of Ayurvedic routines may lead to the development of novel preventive or therapeutic strategies for oral

health. The present review is focused on the various Ayurvedic routines to maintain oral health and prevent common oral diseases.

**KEYWORDS:** Ayurvedic daily routines (Dinacharya), Mukharoga, oral health, common oral diseases.

## INTRODUCTION

According to the World Health Organization (WHO), Oral health is the state of the mouth, teeth, and orofacial structures that enables individuals to perform essential functions such as eating, breathing, and speaking and encompasses psychosocial dimensions such as self-confidence, well-being, and the ability to socialize and work without pain, discomfort, and embarrassment. Oral health varies over the life course from early life to old age, is integral to general health, and supports individuals in participating in society and achieving their potential. Oral diseases encompass a range of diseases and conditions that include dental caries, periodontal (gum) disease, tooth loss, oral cancer, Oro-dental trauma, noma, and birth defects such as cleft lip and palate. Oral diseases are among the most common non-communicable diseases worldwide, affecting an estimated 3.5 billion people. While the global burden of oral health conditions is growing, particularly in low- and middle-income countries, the overall burden of oral health conditions on services is likely to keep increasing because of population growth and ageing.<sup>[1]</sup>

A new Global Oral Health Status Report published on 18 November 2022 by the WHO provides the first-ever comprehensive picture of oral disease burden with data profiles for 194 countries, giving unique insights into key areas and markers of oral health that are relevant for decision-makers. The report shows that almost half of the world's population (45% or 3.5 billion people) suffer from oral diseases, with 3 out of every 4 affected people living in low- and middle-income countries. Global cases of oral diseases have increased by 1 billion over the last 30 years—a clear indication that many people do not have access to the prevention and treatment of oral diseases.<sup>[2]</sup>

This report shows the global need for alternative prevention and treatment options and products for oral diseases that are safe, effective, economical and which won't alter normal oral microflora and not having undesirable side-effects (such as vomiting, diarrhoea, and tooth staining) in developing countries as early as possible, because the standard Western medicine has had only limited success in the prevention of periodontal disease and in the

treatment of a variety of oral diseases. Moreover, they accepted traditional medicine and natural products as an alternative form of health care.<sup>[3]</sup> Furthermore, most of the oral diseases are due to bacterial infections and it has been well-documented that medicinal plants confer considerable anti-bacterial activity against various microorganisms including bacteria's responsible for dental caries.<sup>[4]</sup> Therefore, the traditional system of medicine like Ayurveda is considered a good alternative to synthetic chemicals.

Ayurvedic system of medicine recommends a combination of lifestyle management (which includes diet, specific daily and seasonal practices, Yoga, and meditation), and treatment with specific herbs and minerals to cure various diseases. The botanicals in the Ayurvedic Materia Medica have been proven to be safe and effective, through several hundred to several thousand years of use.<sup>[5]</sup>

Considering all these facts, and agreeing with the proverb 'prevention is better than cure' the present review of literature is focused on the routines explained in Ayurveda to maintain oral health and prevent common oral diseases.

## **MATERIALS AND METHODS**

The databases searched for the current review were classical Ayurvedic textbooks, systematic reviews in Ayurveda, studies that include individual plants or mixtures of plants consistent with the philosophy of Ayurveda, Google Scholar; by consulting existing bibliographies; by using forward citation search; and tracking recent activities in the field of Ayurveda which is primarily concerned with maintaining oral health and prevention of oral diseases through routine procedures.

### **Ayurveda and Oral diseases (Mukharoga)**

Shalakya Tantra is the branch of Ayurveda that explains the treatment of ailments affecting eyes, ears, nose, throat, oral cavity, etc. and mentions 65 varieties of oral diseases that can arise in seven anatomic locations (Adhishtana). Adhishtana includes the Oshtha (lips), Dantamoola (gingiva and tooth-supporting structures), Danta (teeth), Jihva (tongue), Talu (palate), Kantha (throat), and Sarvasara (oral mucosa).

Mukharoga nidana (General etiological factors of diseases of the Mouth) as per Ayurveda: Mukharogas are developed due to excessive indulgence in food prepared with the meat of animals and birds of aquatic regions (Aanupapishita), milk (Ksheera), Curd (Dadhi) and Fish

(Matsya), the doshas with the predominance of Kapha will undergo abnormal increase and produce diseases of the mouth.<sup>[6]</sup> Acharya Vaghbata has given more explanation on this like partaking meat of fish, buffalo (Mah isha), and boar (Varaha), uncooked Raddish (Aamamoolaka); excessive intake of soup of Masha (Urad dal), Dadhi, Ksheera, Sukta (fermented gruel), juice of sugar cane (Ikshurasa) and half cooked molasses (Phaanita), sleeping with the face down, not cleaning the teeth daily, improper administration of therapies like inhalation (Dhooma), emesis (Chardana), mouth gargles (Gandoosha), and venesection (Siravyadha) etc. by these causes the Doshas with the predominance of Sleshma (Kapha) get aggravated and produce diseases inside the mouth.<sup>[7]</sup>

Properties of these eatables as per Ayurveda:

Sl No.	Ahara	Rasa	Guna	Veerya	Vipaka	Doshadusti
1	Matsya <sup>[8]</sup>	Madhura	Guru	Ushna	Amla	Pitta and kapha
2	Mahisha mamsa <sup>[9]</sup>	Madhura	Guru	Ushna	Katu	Rakta and Pitta
3	Varaha mamsa <sup>[10]</sup>	Madhura	Guru and snigdha	Sheeta	Madhura	Kapha
4	Aamamoolaka <sup>[11]</sup>	Katu and Tikta	Laghu	Ushna	Katu	Sarvadoshakara
5	Masha <sup>[12]</sup>	Madhura	Guru and Snigdha	Ushna	Katu	Kapha and Pitta
6	Dadhi <sup>[13]</sup>	Amla	Guru	Ushna	Amla	Kapha and pitta
7	Ksheera <sup>[14]</sup>	Madhura	Snigdha	Sheeta	Madhura	Kapha
8	Shukta <sup>[15]</sup>	-----	Chedana Laghu Teekshna and Ushna	Ushna	Katu	Rakta and Pitta
9	Ikshurasa <sup>[16]</sup>	Madhura	Guru and Snigdha	Sheeta	Madhura	Kapha
10	Phanita <sup>[17]</sup>	Amla	Abhishyandi and Guru	Sheeta	Madhura	Kapha
11	Anupapishita <sup>[18]</sup>	Madhura	Snigdha	Sheeta	Madhura	Kapha

Effect of excess use of different tastes (Rasa) on Oral Health in Ayurveda: Overuse of sweet taste (Madhura rasa) may impair metabolism, affecting oral health causing an excess sweet taste in the mouth and coating (Upalepa) in the tongue. Sour taste (Amla rasa) in excess increases salivation, causes burning sensation in the throat, and increases thirst. Salt taste (Lavana rasa) in excess use causes burning sensation in the throat and increased thirst. Pungent (Katu rasa) overuse causes ulceration, irritation, and burning sensation in the mouth and throat. Bitter taste (Tikta rasa) in excess use causes dryness of the mouth and tastelessness. Too much use of astringent (Kashaya rasa) taste in food may cause stiffness and numbness of the tongue, obstruction in the throat, and increased thirst.<sup>[19]</sup> Acharya Charaka has described that Atisevana of Madhura, Amla and Lavana rasa produces various Mukha Rogas.<sup>[20]</sup>

Hence maintaining hygiene of the oral cavity is more important because the mouth not only plays a vital role in the initial intake and digestion of food and water but also is essential for the formation of speech and normal respiration.

### **Ayurveda and Oral health**

Ayurveda has explained daily rules of conduct for preserving health under the heading 'Dinacharya' which includes oral hygiene, food hygiene, personal hygiene, etc., among them the ones with special reference to oral health and hygiene are explained here. The practice of these techniques helps prevent various oral and dental problems. These include procedures like Danta dhavana (brushing the tooth), Pratisarana (Massaging the teeth and gums), Jivha nirlekhana (tongue cleaning), Gandoosha (gargling), Pratimarsha nasya (Daily administration of medicated oil through the nose), Dhoomapana (inhalation of medicated smoke), etc., and these routines are explained in different chapter names by Acharyas like Matrashitiyaadhyaya by Acharya Charaka, Anagatabhadapratishedam by Acharya Sushruta and Dinacharya by Acharya Vagbhata. Acharya Charaka started explaining the part Dinacharya by giving a preface that it is to maintain the Swasthya (health) and to prevent Vikaras (diseases) and the chapter name Anagatabhadapratishedam by Acharya Sushruta itself means methods to prevent future diseases.

### **Dinacharyas to maintain oral health and prevent common oral diseases are described below:**

**Waking at the proper time:** As per Ayurveda before waking up in the morning at Brahmamuhurta one should ensure proper digestion of food taken during the last night (Jeernajeernam niroopayet).<sup>[21]</sup> This is also important for oral health because if gut health is compromised, it can lead to malabsorption of nutrients such as calcium, vitamin D for tooth enamel and bone health, and vitamin A which aids in saliva production and oral tissue health.

**Dantadhavana (Brushing teeth):** Tooth brushing is the act of scrubbing teeth with a toothbrush and, is one of the main aspects of oral hygiene which helps to remove dental plaque and tartar from teeth to prevent teeth and gum diseases. In Sanskrit, the tooth wood is known as the Dantapavana or Dantakastha; danta meaning tooth, and kastha- a piece of wood. Ayurveda recommends fresh Dantapavana (Chewing Sticks) in the morning as well as after every meal (as per Acharya Vagbhata) to prevent oral diseases, and Acharya Charaka recommends it minimum of 2 times a day (Morning and at night).

The method of use: crush one end of the fresh tooth wood, chew, and brush one by one tooth with it,<sup>[22]</sup> slowly and 1<sup>st</sup> clean the teeth of the lower jaw<sup>[23]</sup> without causing injury to gums.<sup>[24]</sup>

Tooth wood with its properties: These herb sticks/tooth wood should be either kashaya (astringent), katu (pungent), or tikta (bitter) in taste<sup>[25][26]</sup> or even one can use Madhura (sweet) taste<sup>[27]</sup> (but Madhura rasa is not advised by Acharya Vagbhata). The best herbs for brushing teeth are Nimba (*Azadirachta indica*) in Tikta rasa, Khadira (*Acacia catechu*) in Kashaya rasa, Madhuka or Yastimadhu (*Glycyrrhiza glabra*) in Madhura rasa and Karanja (*Pongamia pinnata*) in Katu rasa.<sup>[28]</sup> Otherwise, one can use the fresh stems of Vata/Nyagrodha (*Ficus bengalensis*), Asana (*Pterocarpus marsupium*), Arka (*Calotropis gigantea*), Karaveera (*Nerium indica*), Sarja (*Shorea robusta*), Arimeda (*Acacia farnesiana*), Apamarga (*Achyranthus aspera*), Malathi (*Jasminum grandiflorum*), and Kakuba/Arjuna (*Terminalia arjuna*).<sup>[29]</sup> One should avoid the twigs having Madhura, Amla (Sour) and Lavana (Salt) rasas and those which is Shushka (dried), having Shushira (holes) in it, with Pooti (putrid smell) and Picchila (slimy to touch). Various plants that are contra-indicated for brushing are also mentioned in Ayurveda. They are the twigs of Sleshmathaka (*Cordia dichotoma*), Arishta (*Sapindus trifoliatus*), Bibhithaka (*Terminalia bellerica*), Dhava (*Anogeissus latifolia*), Dhanwaja (*Grewia tiliifolia*), Bilwa (*Aegle marmelos*), Nirgundi (*Vitex negundo*), Sigrū (*Moringa oleifera*), Tilwaka (*Simplocos racemosus*), Tinduka (*Diospyros melanoxylon*), Kovidara (*Bauhinia variegata*), Sami (*Accacia suma*), Pilu (*Salvadora persica*), Pippali (*Piper longum*), Ingudi (*Puthranjiva roxburghii*), Guggulu (*Commiphora mukul*), Paribhadraka (*Erythrina indica*), Amlika (*Tamarindus indica*), Mocaka (*Moringa oleifera*), Salmali (*Bombax ceiba*), and Sana (*Crotalaria retusa*) and Palasa (*Butea monosperma*).<sup>[30]</sup> According to Acharya Sushruta, Dantapavana should be Riju (straight), Agradhita (not having nodes), Avrana (healthy), Ayugmagrandhi (not having many knots) Pratyagram (fresh), and Shastabhoomijam (collected from clean land).<sup>[31]</sup> Its length should be 12 Angula (approximately 9 inches), while its thickness should be equal to Kanshtika anguli (little finger).<sup>[32]</sup>

Acharya Sushruta and Vagbhata have explained Dantachoorna (Teeth powder) for Dantadhavana; After using recommended twigs one has to use this powder for further cleaning of teeth without causing injury to gums.



Dantachoorna told in Dinacharya:

Acharya sushruta <sup>[33]</sup>	Acharya vaghbhatta <sup>[34]</sup>
Vyosha/ Trikatu (Shunti (Zingiber officinale Roscoe), Maricha (Piper nigrum L), and Pippali (Piper longum L) Trivarga/ Trisugandha (Twak (Cinnamomum verum), Ela (Elettaria cardamomum), and Patra (Cinnamomum tamala) This has to be finely powered and use after mixing with Khsoudra(honey)/ Taila (Sesame oil)/ Saindhava (Rock salt powder)/ Tejovati (Zanthoxylum armatum) choorna.	Vapya (saussurea lappa) Triphala (Haritaki -Terminalia chebula Retz., Amalaki -Phyllanthus embelica L., and Vibhitaki -Terminalia bellerica Roxb.) Trikatu Trijata/ Trisugandga The fine powder of these medicines has to be mixed with honey for Dantadhavana.

Pathological conditions in which herb sticks are contraindicated: persons having diseases of throat, palate, lips, tongue, mouth ulcers, dyspnoea, cough, hiccups, vomiting, debility, facial paralysis, indigestion, vertigo, intoxication, headache, excessive thirst, fever, heart diseases, and disorders of eye, head, and ear.<sup>[35][36]</sup> For these conditions, Ayurveda recommends the use of soft and fine powders of the drugs mentioned above for cleaning the teeth.

The benefits of Dantdhavana as per Ayurveda: It is to get rid of the bad odour of the mouth as it cleanses the teeth immediately along with increasing interest towards food due to the removal of Mala/Upadeha/Shleshma (plaque/ unwanted materials) from tooth, tongue, and mouth. The effectiveness of the majority of these herbal sticks has already been researched and has proven its results in oral health.

Plants with oral health-related indications published by Torwane NA et al (2014): Various clinical implications of commonly used Ayurvedic herbs like Amla (*Emblica officinalis*) in the treatment of toothache, gingival inflammations, aphthous stomatitis; Dadima (*Punica granatum*) for controlling oral inflammation as well as bacterial and fungal counts in periodontal disease and candida-associated denture stomatitis; Lavanga (*Syzygium aromaticum*) in oil form for pain in dental caries and eugenol in general gum pain, dental abscess and in other gum diseases; Mandukaparni (*Centella asiatica*) in the treatment of mouth ulcers, decreasing plaque and periodontal pocket depth, Kumari (Aloe vera); Guduchi (*Tinospora cordifolia*) has anti-inflammatory, antioxidant, immune-modulator properties and a significant difference was observed in a study with respect to improvement in salivary flow and in reduction in severity of mucositis in radiotherapy patients thus providing the role of guduchi as radioprotector; Malati (*Jasminum grantiflorum*) leaves are used in treatment of odontalgia, fixing loose teeth, ulcerative stomatitis and oral wounds; Kantakari (*Solanum*

Xanthocarpum) seeds has been used for treatment of dental caries in the form of Dhooopana, Amra (*Mangifera indica*) leaves possess anti-bacterial properties against dental microflora and can be effectively used as adjunct for maintenance of oral hygiene; Nimba (*Azadirachta indica*) the anti-bacterial, antifungal, antiviral, antioxidant, anti-inflammatory, analgesic, immunostimulant, anti-plaque properties of neem are well established; Tila (*Sesamum indicum*)- found that the oil pulling therapy done by using sesame oil reduces plaque index, modified gingival score and total colony count of aerobic microorganisms in the plaque of adolescents with plaque induced gingivitis; Triphala (Haritaki -*Terminalia chebula*, Retz., Amalaki -*Embelica officinalis* Gaertn, and Vibhitaki -*Terminalia belerica* Roxb.) shown very promising anti-caries and anti-plaque properties, it is also used for strengthening the gums and as root canal irrigant; Tulasi (*Ocimum sanctum*) 4% extract as mouth rinse effectively reduces the salivary streptococcus mutans counts.; Haridra (*Curcuma longa* Linn) in relieving pain, gingivitis periodontitis, as colorant in pit and fissure sealant, and dental plaque detection and also it is suggested that turmeric extract can be used in the treatment of potentially malignant lesions in oral cavity, it is effectively inhibits metastasis of melanoma cells and may be useful in deactivating the carcinogens in cigarette smoke and chewing tobacco and so on in the management of various orofacial diseases.<sup>[37]</sup>

**Jihwa nirlekhana (Tongue scrapping):** Jihwa nirlekhana is done gently with a tongue scraper after Danthadhavana and is ideal to use metal scraper made of gold, silver, copper, Tin, Brass or branches of the tree. Scraper should be Riju (straight) with 10 Angula length (approximately 7 inches) and margin should be Teekshna (sharp) enough to remove the mala but should not damage the tongue.<sup>[38]</sup> Jihwanirlekhana followed by Dantadhavana removes Mala, Vairasya (tastelessness) and Gandha (bad odour) of Aasya (Oral cavity), Jihwa and Danta and produces Ruchi (taste), Vaishadya (cleanliness), Laghuta (Lightness) and prevent oral diseases (na bhavanti bhavanti cha).<sup>[39]</sup> The process of Jihwanirlekhana removes bacterial growth and stimulates the secretion of digestive enzymes thereby it improves the sense of taste and decreases foetid smell of oral cavity.

**Gandoosha:** Gandoosha is the procedure of holding any medicated liquid in the mouth to its full capacity for a specific time (ie, until there is lacrimation and nasal discharge) without allowing any movement inside the mouth. Normally it will take about 3-5 minutes. Benefits of regular gandusha includes- Paarushya hara (removes dryness), Oshta sphutana hara (beneficial in lip cracks), Mukhavairasya hara (removes bad taste), Dourgandhya hara



(removes foul smell from oral cavity), Shopha hara (removes inflammation), Jadya hara (removes feeling of Numbness), Sukhavardhana (gives pleasantness), Danta dardhyakara (makes teeth strong), Ruchya (enhances natural taste perception) and Dridamoola (strengthens the gums).<sup>[40]</sup> In Dinachaya Acharyas advised the use of Sneha (unctuous) Dravya especially Tila taila (Sesame oil) for Gandoosha and is in general it prevents cracked lips and its roughness, dryness of oral cavity, diseases of teeth, hoarseness of voice, tastelessness, bad odour, reduces oedema, and numbness, strengthen the teeth, and improves taste perception.<sup>[41][42]</sup> Acharya Charaka added that Gandoosha strengthens the jaw and root of the tooth, improves voice, prevents dryness of oral cavity and throat, prevents tooth decay and tooth sensitivity especially towards sour items and the person will be able to chew even the hardest substances.<sup>[43]</sup> Ashtanga Sangraha also suggested the use of Sukoshnodaka (Lukewarm water) for daily Gandoosha and is said to be Vaktralakhava (produces lightness of oral cavity) and for those who have tastelessness, bad odor from the oral cavity, and excessive salivation use of decoction prepared with Khadira, Ksheerivriksha, and Arimeda for Kavala (a comfortable amount i.e., three-fourths filled of medicated fluid is retained with the mouth closed, for a specific time about 3 minutes, gargled and then spit out) is advised.<sup>[44]</sup> The medicated liquid and oil used in Gandoosha and Kavala protects the oral cavity from infection and inflammation by its antioxidant properties and the viscosity of used medicated oil inhibits bacterial adhesion and plaque co-aggregation.<sup>[45]</sup>

#### **Pratimarsha Nasya (Daily administration of medicated oil through the nose):**

Nasyakarma is a medical procedure in Ayurveda that involves administering medicines through the nasal route. Pratimarsha Nasya is a daily recommended practice of Nasyakarma, which helps in preventing diseases of the head, neck, oral cavity, and respiratory disorders. It is explained in Dinacharya by Ashtanha sangraha and Charaka. This procedure can be self-administered with very few contraindications and is administered in a low dose of just 2 Bindu (Approximately 6 drops). According to Ashtanga Sangraha, Nasya with Anutaila should be done before Gandoosha karma in Dinacharya.<sup>[46]</sup> According to Acharya Charaka, Anutaila Nasya should be performed during Pravrit (here Varsha), Sharat, and Vasanta Ritu, when the sky is clear of clouds.<sup>[47]</sup> Acharya Sushruta and Sharangdhara have described 14 Kala (Suitable times) for Pratimarsha Nasya, while Vagbhata mentioned 15 Kala. This therapy is recommended to be performed after waking up in the morning, after brushing, before going outside, after exercising or having sexual intercourse, after using the bathroom,

after undergoing procedures like Anjana, Kavala, Shiroabhyanga, etc., after meals, after sneezing, after taking a nap, in the evening, and after vomiting.

Indications of Pratimarsha Nasya: It can be done at any age and any season. It can also be given to Bala(children), Vridha (The old aged person), Bhiru(depressive), Sukumara (Those who lead a happy conservative life), Durbala (weak patient) and also to the patient of Ura-Kshata (injury to chest), Kshama(emaciated), Trishna (thirsty), Pidita(tired), Mukhashosha (dryness of mouth), Valita (Toneless skin) and Palita (greying of hair).<sup>[48]</sup>

Contra-indications of Pratimarsha Nasya: It is contraindicated in Dushtapeenasa (chronic sinusitis), in Madhyapi (those who have consumed alcohol), Badhirya (deafness), Krimija-Shiroroga (head infested with worms), Utklishta Dosha (in whom, in the Dosha are greatly imbalanced and moving from place to place) and also in Bahudosha. It should not be given to them because the dose is quite insufficient to eliminate Dosha hence the already aggravated Dosha may get vitiated further.

Method of administration with its benefits in the oral cavity: Lie down in a supine position with head and neck low position, and instil 2 Bindu of medicated oil (Anutaila/ Tila Taila) in each nostril. Pinch the nose once and after releasing, suck the oil up. Repeat the same for another nostril. Spit the oil when it reaches the throat. This simple procedure of Pratimarsha Nasya keeps the sensory faculties healthy, prevents oral cavity disorders (asyarogam na sahaya bhavanti), strengthens the denture, and temporomandibular joints.

**Dhoomapana (Inhalation of medicated smoke):** The literary meaning of 'Dhooma' is smoke and 'Pana' means inhalation. Prayogika Dhoomapana means, a medicated Dhoomapana which can be given daily (Nitya) and without any complication.<sup>[49]</sup> Acharyas have mentioned that one should use Prayogika Dhoomapana in different Kala (time), like After - bath, food, vomiting, sneezing, brushing teeth, Nasya, Anjana and after completing sleep in morning.<sup>[50]</sup> One should take Prayogika Dhoomapana maximum 2 times in a day in any of the above mentioned 8 times either through mouth (in diseases of throat) or through nose (in diseases of head, nose and eyes by pinching the one opposite nostril) and exhale only through mouth (otherwise it badly affects the eyes).<sup>[51]</sup>

Dhoomapanaguna: person who is taking Prayogika Dhoomapana will not be affected with Urdwajatrugata Vata-kapha rogas (Diseases of head and neck produced by Vata and kapha

dosha),<sup>[52]</sup> it cures Galagraha (Pharyngitis), Danta dourbalya (weak teeth), Asyagandha (Halitosis), Dantashoola (tooth ache), Arochaka (Anorexia), Hanu-Manyagraha (TMJ pain and stiffness), Shleshma praseka (excessive salivation), Vaiswarya (hoarseness of voice), Galashunti (Uvulitis) and Upajihwaka (Ranula).

**Tamboola sevana (Chewing betel leaves):** According to Ayurveda, chewing betel leaves is one among the Dinacharya and is a post meal digestive stimulant, oral deodorant, natural antiseptic etc. Drugs used in Tamboola sevana are tender leaves of Tamboola (*Piper betle* L), Jati (*Myristica fragrans*), Katuka (*Picrorhiza kurroa*), Pooga (*Areca catechu*), Lavanga (*Syzygium aromaticum*), Kakkola (*Piper cubeba*), Karpooora (*Cinnamomum camphora*), and Sukshmaila (*Elettaria cardamum*).<sup>[53]</sup> One should do Tamboola sevana after waking up in the morning, after food, after bath and after vomiting.<sup>[54]</sup> It cleanses the oral cavity and teeth, cures the diseases of throat, and cures halitosis.<sup>[55]</sup>

## CONCLUSION

Oral health refers to the health of the teeth, gums, and the entire oral-facial system that allows us to smile, speak, and chew and the use of medicinal plants in oral health and hygiene has a long history in different parts of the world. However, the knowledge of using these medicines in routine practice as explained in Ayurvedic textbooks is not popular everywhere except in a few areas where Ayurveda is accepted and followed.

In this paper, an attempt has been made to review various routine procedures mentioned in Ayurveda that can be used for the maintenance of oral health which further prevent the majority of oral cavity diseases. The literature showed that there are easy but cost-effective routine procedures that can be used in the prevention as well as management of oral diseases. Ayurvedic herbal plants used for these procedures possess antimicrobial, anti-inflammatory, antifungal, analgesic, and anti-ulcerogenic activities when screened according to modern parameters. However, among them, very negligible procedures are practised by common people in their daily lives because of their unawareness, hesitation to accept a traditional system of medicine, busy day-to-day life, and so on.

Effective awareness programs and camps on oral health through Ayurvedic routine procedures should be encouraged globally to maintain oral health to prevent common oral diseases. This will make dental and oral science much easier, safer, affordable, and more accessible for society.

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