



Role of Ayurveda and its Holistic Approach in Dentistry

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Abstract

Ayurveda is an ancient science based Indian system of health care and longevity. It includes a holistic view of man, his health and illness. Shalaky Tantra a system of surgery in ayurveda includes dentistry; it was not a separate branch in ayurveda. In Ayurveda dental health called as "Danta Swasthya". Balancing the three doshas of human body the Vata, Pitta and Kapha can treat dental problems was believed in ayurvedic science. This article over views holistic approach of ayurvedic medicine in dentistry.

Keywords: Ayurveda; Herbs; Oral Health; Oil Pulling; Tissue Regeneration

Introduction

Ayurveda evolved in India probably as old as the Indus valley civilization dating back to 3000 BC [1]. In Vedic period the earliest literature on Indian medical practice appeared in India. Susruta samhita and Charaka samhita are authoritative texts of that period [2]. Large number of surgical procedures and medicinal preparation for treatment of diseases carried out over centuries in ayurveda [3]. Complementary medicine form of ayurveda practiced in other part of the world. The alternative medicine is a form of using tradition medicine to treat diseases adopted by different population [4].

Ayurveda is traditional science based upon holistic treating methods and they believed that oral and other ailments are treated by equipoise of three biological humors called doshas i.e. Vata, Pitta and Kapha. This included in book written by Susrutha Samhita [5].

The balance among the three doshas in both individual and nature determine health care in Ayurveda including dental health. Nowadays the hike of demand is more towards the usage of various ayurvedic products for treatment and management of oral diseases, due to anti inflammatory, antimicrobial, antioxidant properties [5].

The present evidence based review of literature focuses on role of various ayurvedic products that can be used in prevention and management of oral diseases.

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tal health called as "Danta Swasthya. Dental related problems were managed using ancient ayurvedic medicine before modern allopathic medicine came into existence [6].

According to shalakyatantra one of branches of Ayurveda, 65 different oral diseases can arise in seven anatomic locations 8-Lips, 9- Palate, 15 - Alveolar margin, 8 - Teeth, 5-Tongue 17- Oropharynx and 3- Generalized form [7].

Numerous medicinal plants can be used as auxiliary for treating oral diseases. Indian medicinal plants that are used in ayurvedic material proved to be safe and effective [8]. Herbal products in the form of tooth pastes, gum paints, mouth washes, and root canal irrigants are used in oral health care etc. Management of oral disease with herbs discussed in Table 1 [9].

Oil pulling or oil hygiene

Another important method in managing oral health is oil pulling or oil hygiene. Swirling of oil in the mouth for oral health benefit defines oil pulling. Charak samhita mentioned idea of oil pulling called "kala Graham". To prevent dental decay, halitosis, bleeding gums, cracked lips and strengthening teeth and gums this traditional oil pulling method is used [10].

Several medicinal and health benefit properties sesame seed oil is used widely in oil pulling method. Sunflower oil is also used occasionally in oil pulling [11].

Swirling of oil in the mouth activates enzymes and draws the toxins out of blood. Another concept claims that emulsification

greatly enhances the surface area of oil, thereby increasing its cleansing action, sesame oil is relatively high in unsaponifiable substance, and the unsaponifiable fraction can probably protect

the oral cavity from infection and inflammation by its antioxidant property [10].

Sl No	Herb/ Plant (Scientific Name)	Uses
1	Ajowan (Trachyspermum ammi)	It significantly reduce cariogenic property of streptococcus mutans adhere on tooth surfaces well as biofilm formation
2	Aloe vera (Aloe barbadensis)	Its gel with optimum concentration used in tooth paste and mouth washes
3	Clove (Syzygium aromaticum)	Clove oil has potential to influence plaque inducing property of streptococcus mutans. It act as analgesic (prevent tooth pain)
4	Neem (Azadirachta indica)	Neem stick is used to brush teeth, which has high effective in prevention of caries. Neem mouth rinse is highly effective to reduce plaque and gingivitis. It also indicated in treatment of periodontal surgery
5	Miswak (Salvadora persca)	It possesses plaque inhibiting and antibacterial properties against several type of cariogenic bacteria
6	Tulsi (Ocimum sanctum)	It act as COX-2 inhibitor hence have significant effect on toothache, periodontal disorders, candidiasis, premalignant lesions, pemphigus and aphthous ulcer
7	Mango (Mangifera indica)	It plays an effective role in management of periodontal diseases
8	Turmeric (Circuma Longa)	It has anti oxidant, analgesic, anti inflammatory, anticariogenic property
9	Haritaki (Terminalia chebula)	Haritaki mouth wash inhibit the effect of streptococcus mutans and posses antibacterial effect on salivary bacteria
10	Triphala (Myrobalan plums)	It possess antibacterial property as it cures periodontal disease without side effects

Table 1: Management of oral disease with herbs.

Following studies mentioned the role of oil pulling therapy in management of oral health care Amith., *et al.* (2007) used sunflower oil for oil pulling therapy which showed significant reduction in plaque score after 45 days [12]. Sharat., *et al.* (2009) highlighted role of oil pulling therapy which shows significant result against gingivitis induced by plaque [13]. Ashoken (2008) showed significant reduction in incident of dental caries by reducing streptococcus count in saliva and plaque by oil pulling therapy [14].

Tissue regeneration

In Ayurveda well known herb Amla (the fruit of tree) is considered a general rebuilders of oral health, it Works well as mouth rinse, one to two grams per day can be taken orally for long term benefits to the teeth and gums, enhancing healing and development of connective tissue. Use of bilberry and hawthorn berry fruits increase the synthesis of collagen and reduce the breakdown collagen which in turn strengthen the gum tissues. Medicinal herbs like dock root; cinnamon bark and turmeric root are taken systemically which enhance growth of bone and joints [14].

Boonyagul., *et al.* (2012) highlighted the role of herbs in bone formation, and induce bone forming cell proliferation, differentiation and mineralization [14].

Some ayurvedic remedies for common dental problems

- **Yellow teeth:** yellow color teeth occur as a result of life-style choices such as smoking, drinking and eating cer-

tain foods. Ayurvedic methods to clean teeth includes a) mix salt and lime juice and clean teeth b) similarly make a paste of keekar wood (50gms), roasted alum (20gms) and namak lahori (10gms) used for brushing teeth which in turn reduce yellow color [15].

- **Dental caries:** To prevent dental caries make a paste of turmeric, mustard oil and salt and apply on teeth and gums and massage. Eat raw green leafy vegetables and food which contain high amount of calcium [15].
- **Bleeding gums:** In olden days sticks of neem, banyan, babul and holy basil used to clean teeth. Make a solution with mustard oil and alum and apply on gums and massage and rinse with water. Bleeding of gums can be prevented by chewing guava leaves. As gum tissue contain collagen so eat food and fruits rich in vit c and citric acid such as lemon, orange etc, which enhance collagen synthesis and stabilization of collagen and stop gum disease [15].
- **Toothache:** Good and healthy teeth are an amazing balance of aesthetic beauty and engineering. The main cause of toothache is decay of teeth which results from decomposition of food particles on them. There are various Toothache Home Remedies which can help reduce the pain. Indian Ayurvedic practitioners have been using the aromatic spice clove and its oil to get rid of tooth ache. Being an antibiotic, garlic provides immense relief from tooth pain. Ginger and cayenne pepper when mixed together work magic on toothache. Saltwater, which is one of the effective toothache home remedies, helps in getting over the pain and neutralize the lactic acid [15].

Efficacy and safety

Ayurvedic medicines are herbal (natural) or traditional they are safe to use and cause no side effects. However these medicines and practices sometimes cause harmful adverse reactions if the product or therapy is of a) Poor quality b) taken inappropriately c) Taken in conjunction with other medicine. So patient awareness knowledge about safe usage of Ayurveda medicines is important as well as more training collaboration and communication among providers of traditional and other medicines is necessary.

Conclusion

Oral cavity reflects the health of the whole body mouth is often referred as "mirror of the whole body" so dentist should be aware of the various oral lesions and their management using traditional medicines.

The science of Ayurveda should be integrated with modern dentistry and dentist should encourage use of natural remedies in various dental treatments further research and study needs to be focused on the affinity towards use of ayurvedic medicines in dentistry.

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