

Redefining Integrative Biologic Medicine Through Ayurveda. – An Ancient Way

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Abstract

Oral diseases are continued to be a major health concern worldwide. Dental caries and periodontal diseases are amongst the most important oral health issues. Oral health is the mirror of general health well-being and correlates the functions beyond the cranial facial complex. The need for alternative medicine for prevention and treatment for oral products extract from plants and herbs are used as a good alternative.

Keywords: Ayurvedic dentistry, natural oral products, ayurvedic medicine. Ayurveda

Introduction

An ancient science of medicament “Ayurveda”. Ayurveda is a medicine which uses the principles of nature to help maintain health in a person by keeping the body, mind in equal equilibrium. It is a very old ancient system which originated some 5000years ago. Dravaguna- is the pharmacology of Ayurvedic medicine. It has more than 600 herbal formulas and 250 single plant herbs are included in this ancient system. It is used successfully in dentistry as a tooth cleaning, cavity prevention, anti-inflammatory agent and antimicrobial plaque agent. The

botanicals in the ayurvedic medicine have been proven to be safe and effective. The exploration of these traditional medicines may lead to development of preventive and therapeutic approach for oral health.

In ayurveda presence of periodontal disease as found out centuries ago. Classical ayurvedic texts charaka samhita and ashtanga hridaya refer to periodontal diseases and its management.

Periodontal disease is described among the diseases of the face in the charaka samhita, while the ashtanga hridaya refer it has ear-nose throat disorders, shithada (scorbutic gingivitis), Upakusha (periodontitis), Danta.

Etiopathogenic mechanism of periodontitis have been described in detail. Ayurvedic medicine considers that the human constitution (prakriti) is controlled by three elements, they are vata (wind), pitta (bile) and kapha (phlegm).^[2,3]

Disease were thought to occur as a result of an imbalance between these vital elements. Periodontal disease, resulting in swelling the gingiva, gingival bleeding, and protruding of teeth are due to an imbalance of pitta.^[2,3]

Specific strategies of WHO for promotion of traditional medicine (TM) [4]

WHO is working on mainstreaming the traditional medicine system that covers every potential of traditional medicine. It involves the use of herbal medicines, as well as the use of animal parts and other complex factors.

They are,

Regulation of herbal medicine.

Classification of herbal medicine.

Standardization of herbal medicine.

Rational use of herbal medicine.

Pharmaco vigilance program of herbal medicine.

Consumer guidelines of herbal medicine.

Fellowship at collaborative centres.

Ayurveda Recommends Daily Use Therapeutic Procedures For The Prevention And Maintenance Of Oral Health:

Oil Pulling: Gandusha (Gargling): Oil pulling is a procedure that involves swishing oil in the mouth for oral and systemic health benefits. In ayurveda it is called as gandusha and it has been stated that it can cure around 30 systemic diseases. Oil pulling has been used as a traditional remedy for preventing decay, oral malodour, bleeding gums, dryness of the mouth etc. Many studies have proven that it reduces the plaque and gingivitis. [7, 8].

Oil pulling can be done with sesame oil [6].

Dant Dhavani (brushing) : Ayurveda recommends the use of chewing sticks in the morning and after every meal to prevent periodontal disease. The commonly used chewing sticks are neem (margosa or *Azadirachta indica*), Fresh stems of liquorice (*Glycyrrhiza glabra*), black catechu or the cutch tree (*Acacia Catechu* Linn.), Arjuna tree (*Terminalia arjuna*), and milkweed plant (*Calotropis procera*). Chewing of sticks causes attrition and levelling of biting surfaces, increase salivary secretion, plaque control and anti-bacterial action and anti caries properties.

Herbal sticks are either “kashaya” (astringent), “katu” (acidic) or “tikta” (bitter) in taste. The use of herbal brushes, are nine inches long and the thickness of one little finger [2]

Jivha Lekhana (tongue scrapping) : Tongue scrapping removes bad odour (halitosis). Improves the sense of taste, stimulate the secretion of digestive enzymes and it retards bacterial growth. Gold, silver, copper, stainless steel are used for the scrapping of the tongue [1, 2]

Tissue regeneration therapies: Amla (*Phyllanthus emblica*) is considered as a good nutrient of oral health. Amla used and as a mouth rinse. One to two grams per day can be taken orally in capsules for the long-term benefit to the teeth and periodontal health.

Amla has effect on healing and development of connective tissue when taken internally. Regular use strengthens collagen and the gum tissue. Liquorice root has anti-cavity property, anti-bacterial and reduces plaque content. Herbs such as yellow dock root, alfalfa leaf, cinnamon bark and turmeric root are taken orally to strengthen the teeth [2,3,11]

Various herbs used in Ayurveda :Grita Kumari (Aloe vera): Aloe vera, has shown an interesting property of dentin formation. A study investigated the effect of acemannan (Aloe vera gel polysaccharide) on dentin formation. Anti-inflammatory, anti-bacterial, moisturizing, Wound healing, pain relief [9,10,11]

Honey(Madhu)

Studies have shown that honey has antibacterial activity in vitro, and clinical case studies have shown that application of honey to severely infected cutaneous wounds is capable of clearing infection from the wound and improving healing. The mechanism of action is thought to be its chemical pH and osmotic effects, which aid in its antibacterial actions. Honey possess anti-inflammatory activity and stimulate immune responses. In vitro studies have shown increased release of tumour necrosis factor-

alpha, interleukin-1beta and interleukin-6 with Manuka honey, and have suggested that the effect of honey on wound healing may be in part related to the stimulation of inflammatory cytokines from monocytes. These types of cell are known to have an important role in wound healing.^[14]

Lotus (Nelumbo nucifera): Lotus (Nelumbo nucifera) seeds contain alkaloids, saponins, phenolics and carbohydrates. Antioxidant activity of hydro alcoholic extract of Nelumbo nucifera seeds support significant antioxidant nature of lotus seeds.^[12]

Turmeric (Curcuma longa Linn): Therapeutic uses of turmeric are analgesic, antibacterial, anti-inflammatory, anti-tumour, anti-allergic, antioxidant, antispasmodic, appetizer, astringent. The constituents of turmeric is known as curcumin. It can be used in relief from pain, & bleeding of the gingival in gingivitis & periodontitis condition, it is used as pit & fissure sealant.^[16,17,18]

Mango (Magnifera indica): Mango leaf contains ascorbic and phenolic acids which are known to possess antibacterial properties. Mango leaves (magnifera indica) has numerous action against anaerobic oral microflora such as P. intermedia and P. gingivalis and can effectively used as adjunct for maintenance of oral hygiene.^[3,6]

Neem (Azadirachta indica): The bioactive compounds from Azadirachta indica, commonly known as the Neem plant. Some of the observed anti-plaque activity of neem chewing sticks is attributed to the fibrous nature of these sticks resulting in mechanical plaque removal; also contain chemotherapeutic antiplaque agents. [12]

Onion, garlic, mustard and ginger: Garlic and ginger have many therapeutic uses like Antimicrobial, antithrombotic, anti-inflammatory and anticancer activity have been reported. Spices such as mustard, garlic and ginger have been demonstrated to be anti-mutagenic, inducers of detoxification, and preventer DNA damage^[19]

Conclusion

The use of herbal medicine has been successfully used in dentistry as antiseptic, antioxidants, and analgesic, anti-inflammatory. The natural products play an alternative role to antibiotics and also aid in healing of oral infections and thereby improving immunity. Many controlled clinical trials are required to validate the use of these traditional therapeutics strategies in the dental field. The major drawback in acceptability of Ayurveda and its products is a lack of proper standardization technique. Hence, researchers should be encouraged to do more studies to prove the effectiveness and safety of natural dental products.

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