Ayush In Oral Medicine



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Abstract

Dentistry has covered a long way from past to present in providing dental aid to patients. Most of the people think likely that medicine prescribed, is the only drug that is effective. But it reaches to one third of population only as is too costlier for a developing country like India. Oral cavity persists greater health issue around the world. The standard therapy till the date had only limited beneficiary in the management of oral disorders thus; the search for different therapy is continued. Ancient Medicine is timeless and still continue in most part of world. Alternative medicine that is AYUSH System is procuring increasing vouge worldwide. The practitioner should be aware regarding its application, efficacy and health hazards of the medicines.

Keyword- AYUSH, oral disorder, medicine, Unani, Yoga, Ayurveda, Homeopathy

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Introduction

In AYUSH A represent Ayurveda, Y stands for Yoga, U represent Unani, S represent Siddha and H represent Homeopathy which all are individually alternative treatment modalities in oral medicine. Various studies on plants and their products have conducted and found the efficacy of the medicines in the management of various disorders of oral cavity. By considering its importance in various diseases AYUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy) and their possible role in the treatment of oral disease as an adjuvant treatment modality is considered.

Ayurveda

Ayurveda is longest and oldest medicinal system originated thousands of years back in nation. "Ayurveda" is a combination of the Sanskrit word "Ayur" (living) and "Veda" (knowledge of science). According to Shalya Tantra and shalaky atantra (branches),65 oral disease from seven different anatomical locations -eight on lips, fifteen on margin of alveolar mucosa, eight association with teeth, five on tongue nine on the palate, seventeen in oropharynx and three in generalized form.¹

Ayurveda defines wellbeing as the balance of the three Doha's, the 7 dhatus, is the happiness of soul, digestion and, senses, mind. Ayurveda recommended regular practices for oral health. This involve brushing (Dant Dhavani), tongue Scrapping (Jivha Lekhana) and gargling (Gandoosha) or oil pulling and regenerating therapy for tissue.^{1.2} In Ayurveda medicine aloe vera is in use since first century and continue to use worldwide because it is known for its wide spectrum pharmacological and uses in treating tumour, skin diseases, ulcer dermatitis etc.²

Oral disease is worldwide health problem, dental caries and periodontal problem is a global cause of concern, although other premalignant lesion and condition including pharyngeal are significant cause of concern. Due to resistance by bacteria after use of different groups of drugs against bacterial, fungal etc. and drugs for chemotherapy, and economical condition in emergent nations increase the search for alternative treatment modality. Various Ayurvedic oral medicine used in dentistry are Aloe Vera in (periodontal surgery, extraction sockets, aphthous stomatitis, canker sore, lichen planus, migratory glossitis, RCT as sedative dressings and during filing) due to its property of anti-inflammatory, antioxidant ,antibacterial, antifungal, antitumor etc,^{2.1} Clove oil (relieves tooth ache), Eucalyptus (on sore, inflamed gums for temporary relief), Peppermint oil as (mouth wash to relief gum inflammation, and for tooth it will relief pain), Turmeric (analgesic antiseptic, ,anti-inflammatory, antioxidant) curcumin (in oral cancer as chemo preventive agents) .curcumin (in oral mucositis as radiosensitizer, chemo preventive agent).^{1.3} Alcoholic curry leaves (used in oral candidiasis, as showed the highest antimicrobial activity with zone of inhibition 24.05 mm against C. albican.)³ as summarized in Table 1.

Herb/plant extract	Action/Properties	Use in dentistry
Asgand (with	Anti-anxiety	Management of the patients with dental
aniasomnifera)		anxiety
Aloe Vera	Anti-bacterial	Management of oral lichen planus
Babul (Acacia	Antibacterial activity against P.	Management of the gum diseases
arabica wild)	gingivalis and P. intermedia	
Clove oil (Syzygium	Antiseptic, analgesic and	Toothache, gum diseases and mouth
aromaticum)	antimicrobial	ulcers
Eucalyptus	Antibacterial	Management of periodontal diseases
(Eucalyptus Globules).		
Garlic (Allium	Antibacterial, Antiviral and	Dental infections
Sativum, Liliaceae)	Antifungal	
Haldi/Turmeric	Antibacterial, Antiviral, Antifungal,	For the management of dental pain, periodontal
(Curcuma longa)	It suppresses metastasis of melanoma	diseases, dental plaque detection, used as pit
	cells, and deactivates the tobacco	and fissure sealant, Treatment of potentially
	containing carcinogens.	malignant disorders of oral lesions.
Honey (Apis	Antibacterial, Anti-inflammatory and	Management of oral ulcerative lesions
Mellifera)	Immunostimulator	
Jasmine (Jasminum)	Antioxidant, Anti-ulcerogenic	Treatment of Odontalgia, periodontitis,
		ulcerative stomatitis, Skin lesions, Ulcers
Katha (Acacia	Analgesic, Antibacterial, Anti-ulcer, and	Management of wound healing, gingivitis,
Catechu)	Antipyretic	dental caries, tonsillitis, & halitosis
Pomegranate (Punica	Antioxidant	Management of bleeding gums caused due to
granatum)		scurvy

 Table-1 Summary of Ayurvedic Herbs

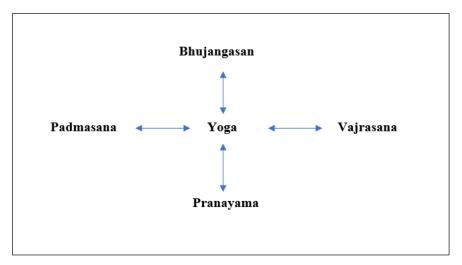
Tulsi leaves (Ocimum sanctum)	Antibacterial	prevents dental plaque, gingivitis, and bad breath
Alcoholic Curry leaves	Antimicrobial activity against C. albicans.	Oral candidiasis

The natural phytochemicals heal oral infections and thereby improving immunity. Yoga- Continuous practicing

Yoga is practiced in Indian subcontinent since 3000 BC, yoga is a Sanskrit word "yuz" meaning union. These are practiced by Asanas, pranayama and contemplation. Its purpose is to uniting the mind, spirit & body. It focuses on body, breathing, mind⁴. It is the inclusion of body brain relaxation therapies that help to produce more proinflammatory cytokines which act as the defence for the stress related changes in immunity.^{4.1}

Yoga is used for care for oral disorder and preservation of good oral hygiene. It slows down the levels of stress and increase the motivation level for maintenance plaque control. It decreased the response to inflammation and increased the immunity to achieved healthy gingiva and improved post healing. The manner of life is focuses toward the beauty of landscape, and in halt of hard & soft tissue disorder of the oral cavity. ^{4.2}Severe stress can raise levels of plasma cytokines pro inflammatory and decrease the A (IgA) which is responsible for chronic inflammation of gums and bleeding, Bad odour, lichen planus etc. Continuous yoga reduces the levels of TNF- α and IL-6 and the oxidative status of the human body improves.^{4,3} The immune system and body defence systems of human body is improved by Yoga. Continuous practicing yoga improves breathing that is helpful to prevent mouth and throat from being dry out and stimulate saliva which is helpful in washing the bacteria and prevent from foul odour.

Yoga is not only the person suffering from dental disease but also for dentist as a professional hazards due to postures variation on chair, long standing procedures develop lots of problem such thoracic kyphosis, tendonitis .cervical as spondylitis, arthritis, etc.⁵All these postural variation problems can resolve by Bhujangasan which make the spine more flexible and rejuvenates and revitalizes the spinal cord.^{5.1} Padmasana work on spinal cord to make it straight, healthy and flexible. The lungs are filled with oxygenated air and the diaphragm is in exact position and pulling the nerves strengthens the legs, and by massaging thoroughly the muscles and bones taut releases.^{5.2} Vajrasana is another asana which to get relief from varicose veins.^{5,3} The blood flow to the lower limbs is reduced by this asana. Total 40-50 minutes per day surprising results obtained as one can remain mentally and physically healthy away from any hazards and stress (Figure 1)





Unani medicine-

Unani medicine (Unani-tibb or Unani Medicine) also spelled Yunani Medicine (in Arabic, Hindi-Urdu, and Persian) means "Greek Medicine. It was also known as Greco Arab medicine. ⁶. It treats whole system not as a part of human body. It treats mind, soul, and body. It is based on Hippocratic theory of four humors i.e., phlegm, yellow bile, blood, and black bile. Unani also play a role in oro dental disease such as in healing of wounds, halitosis, periodontal disease, dental caries, abscess, in oral infection, premalignant lesion, aphthous ulcers etc.^{6.1}

Unani medicine used as therapeutic procedure such as chewing sticks for cleansing of teeth two times in a day after meal for the early prevention of oral health. In Usool-e-Ilaj is for the management of problem related to health and to dental many herbs was given with their benefits like Miswak (Salvadora Persica), Amla (Emblica Officinalis), Aqaqia (Acacia nilotica), Haldi (Curcuma longa), Anar (Punicagranatum), Aspaghol (Plantagoovata Forsk), Babuna (Matricariachamomilla Linn.),

Clove (syzygiumaromaticum), Aqarqarha (Anacyclus pyrethrum), Suddab (Rutagraveolens), Shahad (Honey), Lehsun (allium sativum), etc. For the treatment of oral health diseases. Other Unani formulations like Sunune Zard, Buzidan, Majoon Suranjan, Majoon Azaraqi, Habbe Gule Aak, Sunune Mulook, Sunune Mujalli etc. effective as anti-inflammatory, analgesic, anti-bacterial in dental diseases.^{6.2} (Figure 2)

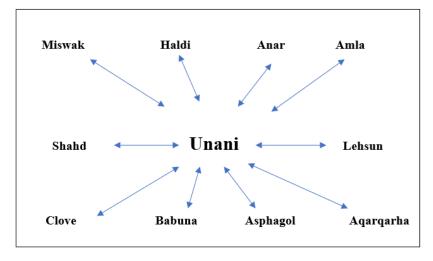


Fig 2: Different herbs used in unani medicine

Oral health problem is increasing day by day in developing countries like India and using unani system of medicine the bacterial load in oral health diseases gets lowered and helps in improvement but due to unawareness of these herbs and the system of medicine in oral disease it leads to the vanishing of the system especially in the younger generation. So, it become crucial to conserve these trades of medicines.

Siddha system-

The other alternative treatment modality or system of medicine was introduced thousand and hundred years back that is Siddha system of medicine which is the other traditional system which is used as substitute to synthetic chemical by using organic phytochemicals from the plants. The botanicals of siddha system proven to be highly safe and effective. The relationship between oral cavity and microbial species is well known and discussed.8 The commercially available chemical agents can modify microorganism of oral cavity having unwanted side-effects such as tooth staining, vomit, and diarrhoea. Organic phytochemicals from plants are a good substitute to synthetic chemicals. Siddha system is originated 2000 year ago, in southern east India, and it is practiced in and near its origin only.^{7.1} In 18th century it was printed as a Siddha literature, before it was written on palm Eur. Chem. Bull. 2023, 12(Special Issue 10), 1138-1143

trees palm leaves. The name "Siddha" means "Siddhi" which represents an acquirement in life arts such as yoga, intelligence, belief, chemistry, medicine and above all the life span. And the person who acquire Siddha are known as "Siddhars" Agasthiyar, one among the 18 Siddhars; are known as 'Hippocrates of Siddha medicine'.^{7.2} This system is concerned with the development of high potency herbal drugs, having long life. It also focuses to initiate the generation of cells and to prolong the longevity. By impute a spiritual or extra-human origin to its medicine, the Tamil Siddhars have assertive to Siddha medicine a authorized place in the corpus of Hindu knowledge.

The investigation of botanicals in Siddha medicine, guided in invention of hardback preventive and therapeutic policies for health of oral cavity. The dentist should carry proper knowledge related to the system before giving as an alternative treatment modality basis on the safety and effectiveness in oral health disease. In Siddha system, a 108 total herbs, known as karpa mooligaigal for the treatment of oral health diseases. Such as Manjal Poo chedi (Spilanthes acmella Murr.) [used as toothache as local anaesthetic], Thotta (Mimosa pudica Linn)[used in open wound having antimicrobial property such as gentamycin],

Chukuti chedi Solanum nigrum Linn[used in oral ulcer], Vata or Vada tree (Ficus Bengalensis Linn) [applied as topically on swelling having anti tumor, antibacterial activity], Karu oomathai (Datura metel Linn)[applied over temporomandibular joint swelling], Mahila (Mimusops elengi Linn) [used in various inflammatory condition], Thandtrikai (Terminalia Bellirica roxb) [in pulpal ,periodontal condition], Nuna (Morinda citrifolia/Noni) [for toothache, aphthous ulcer ,TMJ ankylosis, muscle ache oral cancer etc. having antibacterial, antiviral, antitumor activity and analgesic properties. Majority of the disorder related to oral cavity occur due to bacteria.^{7.3} (Figure 3).

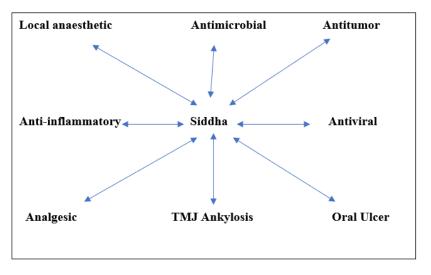


Fig 3: Benefit of Siddha system

The various medicinal plants show antibacterial activity due to bioactive compounds presence. That is the reason that these are good botanical substitute for chemical agent which are various side effect and they are cost effective also for the people who can't afford conventional treatment.

The major issue is that young professionals are lacking in, collection, identification, preservation and processing of the herbal plants for use, they are unaware of other treatment modalities rather than conventional treatment which is cost effective and least side effects. But very least number of herbs are used in routine dental practice because of the unknown toxic effects. Therefore, number of clinical studies are performed to evaluate the efficiency of herbs as well as its toxic levels.^{7.4}

Homeopathy-

Homeopathy was introduced in the last 200 years. Homeopathic medicine does not have any side effect, less expensive, single dose for whole body treatment and treatment for some uncurable disease.² Homeopathy in dentistry also play a crucial role in knowing a cause of disease and treatment according to that. Homeopathy in dentistry used to decrease inflammation and bleeding, general homeopathic medication is used in dental is to prevent many conditions, to eliminate fear, panic and to increase rate of recovery.^{8.1}

Various medicine such as Arnica used as in cases of postoperative pain, swelling , trauma, and bleeding), Calendula ointment [(5%) three times a day is used in cases of angular chelitis], Lac caninum (used in haemophilic patients) 30C every 15 minutes, Hydrastis homeopathic topically in aphthous ulcers, Belladonna 30C every two hours (in presence of cellulitis, dental abscess), Salvia officinalis mouthwash (used several times a day is in dry socket), viola Tricolor drop (eczema in dentist's hands) and many more diseases. Hence it is concluded that Homeopathy may be a suitable adjunct to medication in the management of many conditions since it is economical, effective and upgraded medications for patients.⁹ (Figure 4)

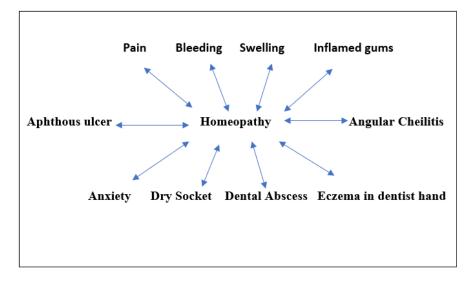


Figure 4: Use of Homeopathic medicine in dentistry

Conclusion

Dentists should be forwarded to use natural remedies in a proper scientific way to generate outcome. These efforts will be helpful in making dentistry much safest, economical even for the lower socio-economic groups of the society. It does not mean to disconnect the conventional treatment in oral health disease which individually play an important role. The aim of this paper is to introduce the role of traditional medicine apart from conventional treatment modalities in oral health disease. AYUSH system of medicine, comprises Ayurveda, yoga, unani, siddha, homeopathy plays a key role in the treatment of oral health diseases. Hence, AYUSH must be considered as good adjunct therapy and should be promoted for the betterment of society.

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