



RESEARCH ARTICLE

THE ROLE OF UNANI CRUDE DRUGS IN ORAL HYGIENE: A REVIEW

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Abstract

Oral hygiene is the practice of keeping one's mouth clean and free of disease by various means like regular brushing (dental hygiene), gargling etc. Oral diseases have become more prevalent in recent years and have emerged as a serious global health issue. Among the most prevalent oral health issues worldwide are oral cancer, dental caries, and periodontal diseases. Unani Medicine has given much emphasis to cure variety of oro-dental conditions including toothaches, gingivitis, stomatitis, bleeding gums, plaque, tooth decay and dental caries etc. using single drugs as well as compound drugs in various forms like Sunūn (tooth powder), Gharāra (gargle), and tablets or pills in combination to other related drugs used in oral diseases. Unani medicine is more easily available, less expensive, and generally safer than other traditional treatments. Unani Materia Medica recommends time-tested herbal preparations that have been shown to be both secure and efficacious. The current review of the scientific data focuses mainly on possible involvement of the Unani system of Medicines in the treatment of various oropharyngeal diseases.

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Introduction:-

The mouth is the 'mirror' of general health. Oral hygiene is the most significant factor when it comes to prevention of oral diseases and preservation of oral health. The oral health is now recognized as equally important in relation to general health. (Dhage and Chougule 2019) In recent times, oral diseases have gained an importance and are considered as a major health problem worldwide. The most common types of dental disease are tooth decay (cavities, dental caries) and gum diseases including gingivitis and periodontitis. (Rai A et al. 2020, Hongal S et al. 2014) Unani remedies have been used since ancient times to cure a wide range of diseases. Despite the significant advancements in modern medicine over the past few decades, Unani medicines continue to play a significant role in

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healthcare. Several remedies particularly in nations like India, are utilized in various forms of medicine, including Unani, Ayurveda and Siddha. Unani medications are becoming more and more popular in the modern world because they have a holistic approach, psychological factors, fewer side effects, and a more qualitative response to seasonal and climatic demands. The Unani system of Medicine is aware of how environmental factors and ecological circumstances can affect a person's health. (Ahmad S et al. 2010) Many Unani physicians advocate use of herbal formulations for the prevention and management of dental health. Herbs which are advocated for oral hygiene are Miswāk (*Salvadora persica*), Haldī (*Curcuma longa*), AqirQarḥa (*Anacyclus pyrethrum*), Aqāqiya (*Acacia nilotica*), Gil-i-Armani (Armenian Bole), Shubb-i-Yamāni (Alum) etc. are found to be useful in treatment of orofacial diseases. (Hongal S et al. 2014). These medicines may be derived from plant, animal or mineral source, of which plant origin drugs are most commonly used in Unani drugs. (Rai A et al. 2020) Unani drugs have been used in both single drug like Clove (*Syzygium aromaticum*), KabābChīnī (*Piper cubeba*) as well as compound formulations like Sunūn-i-Zard, Sunūn-i-Malūk, Sunūn-i-Mujallī, to manage numerous health problems and variety of oro-dental disorders mentioned in Unani Medicine. (Rai A et al. 2020; Hongal S et al. 2014) In the light of the present knowledge, this review is a small effort to discuss the efficacious nature of Unani drugs in the oral disease. (Ahmad S et al. 2010)

Methodology:-

In this review of literature, we only considered those studies that include individual plants or mixtures of plants consistent with the philosophy of Unani medicine. The databases searched for the current review were Medline and related databases, such as Ayush Research Portal, Systematic Reviews in Unani, and Google Scholar, PubMed, by existing bibliographies, by using both forward and backward reference chaining techniques, Unani classical books and by tracking recent activities in the field of Unani which is primarily concerned with prevention and management of orofacial disorders.

Indication of Unani medications for treating oral disorders

Below, specifics of a few of the chosen medications used to treat oral diseases have been reviewed in light of Unani Medicine.

AqirQarḥa (*Anacyclus pyrethrum*)

AqirQarḥa (*Anacyclus pyrethrum* DC.) is one of the important drugs used in Unani System of Medicine for the treatment of teeth and gingiva. It is used in various forms like Sunūn (tooth powder), Gharāra (gargle) and Maḍūgh (chewing material) either single or in combination of other related drugs. (Kalam MA et al. 2015; Rai A et al. 2020) It is used in toothache, dental carries, instability of teeth, pyorrhea, Luknat (stammering in speech) and flaccidity of tongue. (Hakim MA 2015)

1. AqirQarḥa root powder is applied on the tongue to treat stammering and swelling of tongue in children. (Khan MA 2014)
2. Decoction of AqirQarḥa is used in the form of gargle to provide strength to teeth and to relieve toothache. (Khan MA 2014)
3. By keeping AqirQarḥa in mouth, flaccidity of tongue resolves. (Khan MA 2014)
4. Maḍmaḍa (mouth wash) from decoction of AqirQarḥa is very beneficial in the Waja' al-Asnan Bārid. (Khan MA 2014)

Aqāqiya (*Acacia arabica* Lam. extract)

Babūl (*Acacia arabica* Lam.) is a famous tree in India. Its crushed leaves are very effective in the form of gargle in treating various oral conditions like mouth ulcer, sore throat, bleeding gums etc. It is one of the important drugs used to provide strength to teeth.

1. Small branches are very beneficial for strengthening of teeth in miswak form (traditional twig brush). (Rai A et al. 2020)
2. Soaked Aqāqiya in water is used as a gargle in mouth ulcer and sprinkling the Safūf (powder) of Aqāqiya is also beneficial in Qulā'-i-Dahn (mouth ulcer) and bleeding gums. (Ghani N 2011)

Gil-i-Armani (Armenian Bole)

Gil-i-Armani is an earthy substance (clay material) derived from a mineral source that has been used in the Unani System of Medicine for a long time. It is a smooth, clear material that is reddish-black or reddish brown in color. It is very beneficial in Kathrat-i-Lu'āb (excessive secretion of saliva) and also effective in Qurūh-i-Muta'affināfi'l Fam (septic ulcer of mouth) and Qulā'-i-Dahn (stomatitis) (Rai A et al. 2020)

Gul-i-Surkh(Rosa damascena flower)

Gul-i-Surkh(Rosa damascena)is a well-known flower, therapeutically being used in pain management in various oral diseases such as Dard-i-Liththa(pain in gums),Dard-i-Ḥalaq(throat pain), and Qulā'-i-Dahn(stomatitis). (Ansari Set al. 2017)

1. Gargling with a rose-honey mixture is quite effective for throat issues. Its local application cures stomatitis and oral thrush caused by lime chewing. (Ansari S et al. 2017)It is used as a sprinkle in Qulā-i-Dahn.(Safiuddin S 2013)
2. Instillation of rose oil in ear is beneficial in toothache.(Ansari S et al. 2017)
3. Rose plant is used for the treatment of sore throat and tonsillitis, it strengthens the muscle of gum.(Nazamuddin et al. 2018)
4. Gargle from decoction of rose flower is helpful in sore throat, toothache and hoarseness of voice.(Nazamuddin et al. 2018)

Haldī(Curcuma longa Linn)

Turmeric is a rhizome obtained from Curcuma longa Linn of Zingiberaceae family. (Kalam MA et al. 2019)Its anti-inflammatory properties aid in the treatment of discomfort, gingivitis, and periodontitis. By virtue of antioxidant properties and deoxyribonucleic acid-protective processes, turmeric is a beneficial therapy for precancerous lesions and conditions. It enhances serum and salivary vitamin C and vitamin E levels in leukoplakia, lichen planus, and oral submucous fibrosis. Turmeric is an effective, easily accessible, and non-invasive treatment for oral submucous fibrosis, and its use significantly reduces burning sensation.(Umapathy VR et al. 2022)

Chewing of the rhizome is useful for toothache, a small cloth bag filled with the powder of Haldīs put on the aching tooth and it eases the pain. (Ghani 2011)

FilfilSiyāh(Piper nigrum Linn)

Black pepper is commonly used fruit of Unani System of Medicine which is obtained from a climber (Piper nigrum Linn) of Piperaceae family. (Kalam and Ahmad 2016) It has been mentioned for the treatment of different oro-dental illnesses and medical conditions by great ancient physicians. It acts as anti-inflammatory, analgesic, cleanser, saliva producer, so it is useful in dryness of mouth, toothache and sore throat etc.(Khan MA 2014, Ghani N 2011).After removing plaque from decayed teeth, filling it with FilfilSiyāh has been proven of considerable benefits. It is useful ingredient in tooth powder and also used in case of sore throat.(Khan A et al. 2016)

Kāfūr (Cinnamomumcamphora)

Kāfūr(camphor) is a white, crystalline substanceextracted from the wood, twigs, and bark of Cinnamomum camphora by steam distillation and sublimation process. (Alam K et al. 2019).For many years, Kāfūr has been used traditionally as Dafī'-i-Ta'affun(antiseptic), Musakkin-i-Alam (analgesic),Muḥallil(inflammation) and Mukhrish (skin irritant).

1. Kāfūr can be used in decayed tooth as a localapplicant and gargle. (Kabiruddin M 2014)
2. Filling tooth cavity with Kāfūrrelieves pain. (Kabiruddin M 2014)
3. SafūfōfKāfūr and Misri use in form of sprinkle, relieves inQulā'-i-Dahn. (Kabiruddin M 2014)

Shibb-i-Yamani (Alum)

Shibb-i-Yamani known as Alum is a white crystalline substance. It is easily available and used for medicinal purpose since time immemorial. Shibb-i-Yamanibiryān (roasted alum) is used medicinally for the treatment of various ailments.(Kalam MA. 2021)It hasQābiz (astringent), Habisuddam (haemostatic) and Mujaffif (siccative)properties. (Hakim MA 2015)

1. Alum is therapeutically used as Maḍmaḍa in a number of diseases such as Qurūh-i-Liththa (ulceration of gum), Liththa-i-Dāmiya (bleeding gums), Istirkha-i-Liththa,TaḥrīqDandānwaLiththa (loosening of gum & teeth), Qulā' (stomatitis), Waram-i-Lawzatayn(tonsillitis) and Waram-i-Ḥalaq (pharyngitis).(Zeenat F et al. 2018; Ali A and Mustehasan 2004;Hakim MA 2015)
2. Alum is used along with honey to cure stomatitis.(Ali A and Mustehasan 2004, Zeenat F et al. 2015, Hakim MA 2015)

Qarnful(Syzygiumaromaticum)

Qarnful is one of the important spices used to make food and giving fragrance to various products. It is very beneficial drug used by the many Unani physicians to treat oro-dental diseases like Bakhr al-Fam (halitosis), Waj'al-Asnān (toothache), Qurūh-i-LiththaDamiya (septic gingivitis) and Qulā-i-Dahn (stomatitis)(Rai A et al. 2020)

1. Roghan-i-Qarnful(Clove oil) is frequently recommended for ozostomia or oral sepsis,toothache or muscular pain (Sagar PK et al. 2017)
2. It is given to chew asMaḍūgh in order to remove bad odour, to strengthen the gums, and to relieve toothache.(Baitar I 2003; Khan MA 2014)

Kabab Chini(Piper cubeba)

Kabab Chini is a fruit obtained from the climber Piper cubeba of Piperaceae family. (Kalam and Ahmad 2016) It is used in the treatment of **Bukhūr-i-Fam** (Halitosis), **Maram-i-Liththa-Mut'affina** (Septicgingivitis), **Qulā-i-Dahn-Mut'affina** (Septic stomatitis),Qurūh-i-Liththa (Gums Ulcer) (Rai A et al. 2020; Alam A et al. 2013)It is included in La'ūqāt(linctus) due to its Muqawwi-i-DandānwaLiththa properties. It is beneficial in **Qurūh-i-Fam** (mouth ulcer), and sore throat also.(Ghani N 2011)

1. Chewing of Kababa removes bad odor from mouth and clears the voice. (Kabiruddin M 2014)
2. It is used in the form of lozenge to cure hoarseness of voice.(Ghani N 2011)
3. To strengthen gums and tooth, it is used in the form of Manjan (tooth powder).(Ghani N 2011)

Nīm(Melia azadirachta)

Nīm is the well-known drug utilized in India by general people. Almost all parts of Nīm like fruits, seeds, oil, leaves, roots and barkhave been used by the Unani and Ayurveda physicians for the treatment of various oral diseases (Ghani N 2011;Khan MA 2014)

1. Miswak (brushing) with a Nīm branch removes tooth infection and prevent dental caries. (Hakim MA 2015)
2. A solution or gel prepared by Nīm-extract can be given in Safr al-Asnan (plaque) and Iltihāb-i-Liththa (gingivitis),primary dental cariesand for removing or inhibition of bacteria causing tooth decay.(Rai A et al. 2020)
3. Gharāra (gargling)and Maḍmaḍa (mouth wash) with decoction (Joshanda)of Nim's fruit, Nīm's leaves are done to strengthen the gums and tooth and prevent drooling. (Ghani N 2011 &Hakim MA 2015)
4. Nīm has been associated with a number of benefits, including astringent, antiseptic, insecticidal, anti-ulcer, and tooth cleaning in cases of pyorrhea and other dental conditions. Gingivitis and periodontitis have been treated with Nīm leaf extract. Nīm has also shown increased effectiveness in the management of periodontal diseases, including infections of the mouth and reduction of plaque formation.(Pai MR et al. 2004)

Discussion and Conclusion:-

Oral diseases are one of the most important problems in public health and are on the rise in developing countries.Bacterial infections are the primary cause of the majority of oral illnesses.The presence of potentially bioactive chemicals in medicinal plants contributes to their antibacterial action by lowering the bacterial load in the mouth cavity and preventing the development of plaque, dental caries, and ulcers. Natural origin drugs are widely used in traditional systems of medicine for oral and dental problems around the world. New generation is ignorant of this traditional knowledge. Because of younger generation's lack of knowledge on the identification, collection, preservation and processing of the plant species for medicinal use therefore it is imperative to preserve these ethno-cultural practices before they are irretrievably lost. The goal of this research paper is to explore a variety of herbal drugs used in Unani medicine that can be utilized in oral disease. According to the literature, there are several Unani medicines that can be used to treat and prevent oral problems. The majority of these medicines have many effects, including analgesic, anti-inflammatory, anti-microbial, and anti-ulcer properties.The traditional knowledge of Unani should be integrated with the modern dentistry. For this, the active principles of plants should be incorporated into modern oral health-care practices and dentists should be encouraged to use natural remedies in various oral health treatments. This will make dentistry much safer, affordable and more accessible for the lower socio-economic groups in society.

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