Ayurvedic approach in Oro-Dental Care in Prameha

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ABSTRACT

Ayurveda, the traditional system of medicine that originated in India, offers a holistic approach to health and wellness, including oral care. In the context of diabetes, maintaining oral health is crucial because individuals with diabetes are at an increased risk of developing dental issues such as gum disease and infections. Ayurveda emphasizes the balance of doshas i.e. Vata, Pitta, and Kapha, proper diet, and lifestyle modifications to promote overall well-being, including oral health. Regular dental check-ups, maintaining good oral hygiene practices, and following the guidance of Ayurvedic principles are essential components of oral care for individuals with diabetes cases. Exploring the integration of Ayurveda into the oral care of diabetes cases involves considering the holistic principles of Ayurveda, the role of specific practices like oil pulling and herbal components, and the practical application of these principles in conjunction with conventional care. It's a fascinating intersection of traditional wisdom and modern healthcare, and ongoing research can shed more light on the efficacy and nuances of Ayurvedic approaches in managing oral health in individuals with diabetes.

Key words: Danta Harsha, Danta Vaidarbha, Krimi Danta, Mukha Shosha

INTRODUCTION

Ayurveda is a natural healthcare system that originated in India more than 5000 years ago. Its main objective is to achieve optimal health and well-being through a comprehensive approach that addresses the mind, body, behavior, and environment. It’s a well-known fact that good oral health is integral to the general health of an individual and people with diabetes are at increased risk of oral health problems. Dental diseases i.e., ‘Danta Roga’ in Ayurveda are described in ‘Shalakya Tantra’- one of the 8 branches of ‘Ashtanga Ayurveda’ under the heading ‘Mukha Roga Adhikaara’. A 15 number of ‘Dantamulagata Rogas’ and 8 number of ‘Danta Rogas’ are described in Sushrut Samhita (Uttar Tantra) while Vagbhatta counted 13 ‘Dantamulagata Vyadhis. The description of ‘Danta Roga’ and ‘Dantamulagata Rogas’ in various Ayurvedic texts is very similar to the dental diseases described in modern medical Science.

Ayurvedic concept of inter-relationship between Mukha Roga & Prameha Roga:

In the description of Prameha Roga, while describing its Purvarupa, the following terms are encountered in verses:
1. Maddhuryam Aasye - (Ch. Chi.6)
2. Galatalu Shosha (Xerostomia) - (Ch. Chi. 6)
3. Dantadinam Malaadhyatvam - (Ma. Ni. 33)

Above mentioned entities are frequently seen in diabetics. Other clinical entities that are frequently seen in diabetics are:

a) Mukha Shosha (Xerostomia)
b) **Danta Harsha** (Increased tooth susceptibility towards percussion)

c) **Kapalika** (Increased incidence of enamel hypoplasia)

d) **Krimi Danta** (Dental caries)

e) **Danta Vaidarbha** (Gingivitis: ranging from mild to severe)

f) **Saushira** (Deep periodontal pockets)

g) Cheilosis or tendency towards drying & cracking

The rate of periodontal destruction is similar for diabetics and non-diabetics up to the age of 1-29 years. However, after that, its incidence is greater in the diabetic population. Although the above-mentioned oral disease can also occur in normal individuals, it also revealed an increased prevalence of gum diseases ranging from gingivitis (an early stage of gum disease) to periodontitis (a serious form of gum disease) adding to the list of other complications associated with diabetes such as heart disease, stroke, etc. All these diseases are well versed in Ayurvedic texts too and along the line of treatment too are discussed in detail. Sushruta and Vagbhata described specific treatment principles in detail according to prevailing conditions while in Charaka Samhita general guidelines like the use of **Kavala, Dhumapana, Pradhamana Nasya**, etc. Some important features of Charaka’s guidelines for the treatment of Mukha Roga:

1. **Kavala**
   In all Mukha Rogas, decoctions prepared from Tikta, Katu Pradhana Dravyas mixed Madhu should be used as Kavala. In Kavala, medicine is kept in the mouth for some time and moved in all directions by the patient himself. For Kavala Pipplayadi Churnam (Pippali, Agaru, Daruhaldi, Yavakshara, Patha, Haritaki) mixed with honey can also be used.

2. **Manjana** (Tooth Powder)
   In toothaches, and bleeding gums Charaka has advocated the use of **Tejohavadi Choornam** in paste form containing Tejabala, Haritaki, Ela, Manjishta, Kutaki, Nagarmotha, Patha, Malakangni, Pathani Lodhra, etc.

3. **Mukha Dhavana** (Mouthwash)
   For maintaining good oral hygiene, the formulation containing Triphala, Patha, Munakka, Jatipatra and other Tikta Kashaya Dravyas mixed with honey in cold decoction form can be used for Mukha Dhavana.

4. For any oral disease **Kalaka Choornam**, **Khadiradi Gutika**, and **Khadiradi Tailam** are other important medications mentioned by Aacharya Charaka in Charaka Samhita.

It has been observed that persons aged above 50 years and are diabetic and smokers are at twentyfold greater risk of developing gum disease. The glucose content of gingival fluid is high and C-AMP (cyclic adenosine monophosphate) is deficient in salivary secretions which in turn plays a key role in inhibiting inflammation, so this leads to increased severity of gingival inflammation in diabetics. Moreover, owing to disturbed oral hygiene in diabetics greater preponderance of Candida albicans, hemolytic streptococci, and staphylococci are seen. Candidal colonization is attributed to increased genetic susceptibility, altered immune response, and a change in an oral biochemical environment favouring exuberant growth.

**Ayurveda in maintaining Oral Health in Diabetes:**

It’s a universal fact that the basic crux of diabetes and its complications lies in the stringent control of blood sugar under physiological limits. Various conditions and their management according to Ayurveda can be summarised as follows:

1. **Xerostomia (Mukhashosha)**
   Owing to decreased salivary secretions patient complains of dryness and a burning sensation in the mouth. Oral mucosa becomes dry, atrophic, and inflamed. In Ayurveda, it’s referred to as **Talushosha** or Mukhashosha as a prodromal symptom of Prameha.

   (Su.Ni.16). Charaka has said it is also a prodromal symptom of Trishna Roga (Pragrupam Mukhashosha) in Charaka Samhita. (Ch.Chi.22/8)
Charaka has advocated fresh Aamlaki Swarasa as Gandusha.

Besides external use, one may also advise internal use of Aamalki Swarasa with Haridra (Su. Chi.11/8) in Madhumeha up to 30-50 ml twice daily empty stomach to combat hyperglycemia. The antihyperglycemic effect of Aamalki is proven in various pharmacological trials and it is described in the treatment of Madhumeha frequently in almost all ayurvedic texts.

2. Cheilosis or tendency towards drying and cracking

Here, oral intake of Aamlaki with Pravala Pishti (250-500 mg) is prescribed as it is a rich source of vitamin C and calcium and Aamlaki is advocated in the treatment of Madhumeha in Ayurveda.

Dosage - Powder: 5-10 gm BD
Swarasa: 30 ml BD

3. Increased Tooth susceptibility towards Hot and Cold

This condition is comparable to ‘Danta Harsha’ described below:

Danta Harsha -

dशनाणां शीतमुष्णां च सहन्ते स्पशशनां न च।

यस्य तां दन्तहर्श तु व्याधि स्मृणात् ॥ (Su. Ni.16/32)

i.e., person can’t tolerate touch of too hot or too cold due to vitiated Vata Dosha.

Here, Gandusha having Snehan (Oleation) properties is advocated. Warm Tila Tailam can be used as Gandusha. Ghrita medicated with Jeevaniya Gana can be used in later stages. ‘Anu Tailam Nasyam’ too is usefully alleviating vitiated Vata Dosha in Urdhavajatrugata Roga (Supraclavicular disease).

4. Increased incidence of Enamel Hypoplasia

In Ayurvedic nomenclature, this condition is termed as ‘Kapalika’ described below:

Kapalika -

दाललिनि दन्तवल्कानि यदा शुकरिन्या सह।

जेय कपालिका सेव दशनाञा विनाशिनि॥ (Su. Ni. 16/35)

i.e., when Danta Valkala (Covering over teeth i.e. enamel) starts eroding along with deposited Sharkara resulting in the ultimate destruction of teeth then it is termed as Kapalika. Sushruta has advocated treatment described for ‘Danta Harsha’ and the application of a paste made from ‘Laksha Choorna & honey’ over affected teeth. Enamel is the hardest part of the human body and its erosion can be checked above mentioned formulation given by Sushruta can be tried in this condition as in modern medical science only covering of affected tooth with an artificial cap as the remedy.

5. Dental caries (Krimi Danta)

कृष्णधचद्री कथ शावि संसर्वान् महान।

अनिमित्तो वाताद विजेत्य कृमिदंदन्तक ॥ (Su.Ni.16/31)

i.e., tooth which becomes black in colour, mobile, perforated, and having intense pain and inflammation should be considered as Krimi Danta. Although methods for extracting Danta Krimi mentioned in Ayurveda are not practiced nowadays, their efficacy can be explored on clinical grounds in selected cases in modern times.

Treatment - Immobile Krimi Danta should be done by Swedana, Raktamokshana, Avpeedana Nasyam Gandusha with Sneha and application of Bhadradarvadi and Punarnavadi Gana over affected teeth (Su. Chi. 22/38-39). Mobile Krimi Danta should be taken out and after that ‘Agnikarma’ is used over the affected place followed by Nasyam with milk or oil medicated with Vidari Kanda, Shringatak, Kaseru, Mulethi Kalka, etc. It is proposed that after extraction of teeth, Agnikarma must be indicated for sterilization and closure of exposed blood vessels and medicated milk Nasyam is given to pacify vitiated Vata Dosha. (Su. Chi. 22/40) Snehan Gandusha can also help to decrease increased tooth mobility in diabetes. It can alter the response of periodontal tissues to local irritants that hasten bone loss in periodontal disease.

6. Gingivitis (Danta Vadarbha)

घृष्टेर्नुदंतमुलेर्नु सांरम्भो जायते महान।

भवन्न्त च चल दन्त से वैदमिपाय च •॥ (Su.Ni.16/25)
i.e., rubbing over roots of teeth causes excessive inflammation, increased tooth mobility, etc.

Here, Sushruta has advocated Kshara Prayoga. Charaka has mentioned Kshara Gutika in which Yava Kshara mainly in combination with other herbs like Panchakola, Talishapatra, Ela, etc. are used. (Ch.Chi.26/192)

7. Deep periodontal pockets (Deep periodontitis)

In Ayurveda above mentioned condition is referred to as ‘Saushira’ and ‘Mahasaushira’ depending upon the severity of the disease.

Treatment - In Shushira after letting blood from gums (Raktamokshana), apply a paste made from Lodhra, Nagarmotha, and Rasanjana. Besides, Gandusha is made from decoction of ‘Kshirivrksha’ (Vata, Udambara, Plaksha, Parisha, Ashwatha) and Kheera Nasyam medicated with Sariva, Kamal, Mulethi, Lodhra, etc.

In various dental conditions mentioned above certain Ayurvedic toothpastes too as per availability in the market can be used. Important among them are Pyokil (Gurukula Kangri Pharma), G-32 (Alarsin), Vajradanti (Vicco), etc. Certain teeth-strengthening herbs like Khadira and Puga also proved beneficial in Madhumeha. Besides Dashana Samskara Choorna has broad therapeutic implications from an Ayurvedic perspective almost in every dental disease.

DISCUSSION

- **Gandusha and Kavala**: Oil pulling is an ancient Ayurvedic practice that involves swishing oil in the mouth for a certain period, typically using sesame oil or coconut oil. This practice is believed to help reduce bacteria in the mouth, improve gum health, and prevent cavities.

- **Herbal Toothpowders and Toothpaste**: Ayurveda recommends the use of herbal toothpowders or toothpaste containing ingredients like Neem, Babool, Triphala, and clove for cleaning teeth. Neem, in particular, is known for its antibacterial properties and can be beneficial for oral hygiene.

- **Ayurvedic Mouthwashes**: Some Ayurvedic mouthwashes may include herbal extracts like Neem, licorice, and Triphala, which can help in maintaining oral hygiene. These natural ingredients are believed to have antibacterial and anti-inflammatory properties.

- **Dietary Recommendations**: Ayurveda emphasizes a balanced diet that suits an individual’s dosha constitution. For individuals with diabetes, managing sugar intake is crucial. Bitter and astringent tastes are often recommended in Ayurveda for oral health. Bitter herbs like neem may be incorporated into the diet.

- **Ayurvedic Remedies for Gum Health**: Ayurvedic remedies for gum health may involve the use of herbal pastes or powders applied to the gums. These may include ingredients like Triphala or a mixture of herbal powders with honey.

- **Lifestyle Modifications**: Stress management is an essential aspect of Ayurveda. Stress can negatively impact oral health, and practices like meditation and yoga may be recommended to manage stress levels.

It’s important to note that while Ayurvedic practices can complement conventional oral care, individuals with diabetes should consult with their healthcare provider for a comprehensive approach to managing their condition.

CONCLUSION

Due to the rising burden of diabetes worldwide and the impact of diabetes on oral health and vice versa, the prevention of oral disease and promotion of oral health are essential components of diabetes management. It is high time to take the initiative to emphasize oral health and diabetes. So, it may be concluded that they are simple omnipotent herbs and treatment procedures mentioned in Ayurveda that may prove safe, cost-effective in the management and
treatment of oral disease in diabetes to reduce the financial burden of disease on individual and healthcare systems and maintain quality of life towards normalcy.

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