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REVIEW ARTICLE - PREVENTIVE DENTISTRY IN AYURVEDA

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ABSTRACT

Ayurvedic medicine was considered to be world's oldest medical system, which was originated in India dating back over thousands of years. There was a long history regarding plants for the improvement of dental health and oral hygiene. Ayurveda, the science of healthful living, emphasizes equally on preventive and curative aspect of diseases. It also suggests that a wise person who wants to be healthy should take care of his body. The importance has been given to Dental hygiene to maintain health and beauty. The healthy teeth are very much necessary for healthy body. The glorious and beautiful smiles flash only with glossy white and well arranged teeth. These are the

most important organ of mechanical digestion in body. Unless the teeth pulverize the food, the enzymes cannot chemically digest it. Hence, painful teeth, absence of teeth or diseased teeth and gums often lead to indigestion and insufficient utilization of the undigested food, results in malnutrition.

KEYWORDS: Teeth, Mechanical digestion, Pulverize, Preventive.

INTRODUCTION

The medical system is truly Indian in origin and is developed in terms of "Ayurveda" which combines the Sanskrit word "Ayur" (life) and "Veda" (Science of knowledge). The written source of the ancient books known as "The Vedas.".^[1]

Vyasadeva wrote down the Vedas for the first time, which include a branch called as the Ayurveda. Ayurveda originated over 5000 years ago.^[1]

The purpose of Ayurvedic Medicines was to coordinate and maintains the body, mind, and spirit. This balance is believed to lead happiness and health and prevent illness.^[1]

The Aim of ayurveda is

स्वस्थस्य स्वास्थ्यरक्षणम आत्रस्य विकार प्रशमनं च।

To maintain the health of healthy person is the first aim of Ayurveda^[1].

The Mukha (oral cavity), work as a mirror of the body by acting as gateway of the alimentary canal and in that way it is considered to be one of the most important part of the body, importance has been given to Dental hygiene to maintain health and beauty. The healthy teeth are very much necessary for healthy body. If the teeth are not clean, healthy and strong they cannot be capable to mastication and proper digestion and without proper digestion there cannot be proper nutrition.

"PREVENTION IS BETTER THAN CURE"

The goal of **preventive dentistry** is to have a healthy Oral cavity for a lifetime, by achieving this goal, new and recurring diseases can be prevented.

What Is Preventive Dentistry?

Tooth is an associated tissue of bone. Pulp of the tooth corresponds to the bone marrow (Majja).

Oral cavity is all the time moist and sticky because of the presence of Saliva. According to ayurveda Kapha dosha naturally dominates in the oral cavity. Hence in any diseases of the teeth, gums as well as mouth, it is important to use medicines having kapha samaka action. Animal never clean their teeth. Probably human also never cleaned his teeth in ancient time, as his food contained lot of hard and rough substances, which had a natural cleansing action on teeth. With civilization, human started using more and more cooked food and hence the need to chew the food grew less and less. As a result, the third molars have become a vestigial structure in most persons. The cooked food sticking to the dental crevice serves as a good medium for bacterial growth. Therefore, it is essential to clean and brush the teeth in the morning after getting up, after lunch and dinner or after eating anything for the prevention of Danta Roga. [7]

MATERIAL AND METHODAS

- To evaluate the different uses of Ayurveda concept in dental health and oral hygiene.
- To evaluate the preventive therapies are mentioned as a part of dincharya or treatment, for the prevention of Danta roga.
- Literatures on advance research on the dentistry including original articles and paper in PubMed database were taken into the study for review.

NIDANA OF MUKHA ROGA

Only Acharya Vagbhata and Yogaratnakara have described the Samanya Nidanas of Mukha Rogas. Acharya Kasyapa has mentioned the Samanya Nidanas of Mukha Rogas under the heading of Pratisyaya Cikitsa. Acharya Madhava has also described the Nidanas of Mukha rogas similarly as Yogratnakara, but he has used the Word "Matsyadi sevena", instead of "Masadi sevana". [3,4] (Table - 1).

Table. 1. Nidana of Mukha Roga.

Aharjanya Nidana	Viharajanya Nidana	
Matsya Sevana	Avak Sayya	
Atimamsa Sevana	Ati Parsva Sayana	
Balamulaka	Anuchita- Dhuma,	
Masa	Chhardana,	
Dadhi	Siravedha	
Ksira	Vega Vidharana	
Iksu	Snana after Guru Ahara,	
Sukta	Ahara Sevana in Ajirna	
Phanita	Avrta MukhaSayana	
Guru, Madhura, Sita	Danta Dhavana Dwesa	
Ruksa ahara		
Ati sitambu pana		

In Ayurveda texts many types of preventive therapies are mentioned as a part of Dincharya or Treatment, for the prevention of Danta roga.

(A) Dantadhavana (Cleaning the Teeth)

एकैक घर्षयेद्दन्तं मृद्ना कूर्चकेण त्।

दन्तशोधनचूर्णेन दन्तमासान्यबाधयन् ।।

Dantadhavana means of brushing, Manjana, Pratisaraņa, etc.

METHODS

Each tooth should be brushed individually by Kurcaka, which is a soft tooth brush made from medicated plants.^[5]

The tooth brush should be rotated over the gums and the teeth in a vertical manner, from below upwards in the lower jaw and from above downwards in the upper jaw.^[5]

Datun (Tooth Brush)

तत्रादौ दंतपवनं दादशांगुलमायतम्।

कनिष्ठिकपरीणाहमृज्वग्रंथितमव्रणम्।।

अय्ग्मग्रंथि यच्यापि प्रत्यग्रं शस्तभूमिजम् ।

अवेक्ष्यर्त् च दोषं च रसं वीर्य च योजयेत् ।।

कषायं मध्रं तिक्तं कट्कं प्रातरुा Rथत: ।

The stems should be 1 finger in breadth, 10-12 fingers in length and should have bitter, pungent or astringent taste. Svadu, Amla, Lavana, Rasa should be avoided. The stems should be healthy, soft, straight without any leaves and knots and picked from a tree growing in a clean place and should not be dry or sticky or foul smelling.^[5]

निम्बश्च तिक्तके श्रेष्ठः कषाये खदिरस्तथा।

मध्रेको मध्रे श्रेष्ठः करञ्जः कट्के तथा ।।

Acharya Sushurta explained most effected stems based on rasa like. [5]

Tikta Rasa - Nimba

Kashaya Rasa – Khadir

Madhur Rasa – Madhuka

Katu Rasa - karanja

Indicated Srems As A Tooth Brush (Dantapawan)

अर्कन्यग्रोधखदिरकरंजककुभादिकम्।

प्राप्तभुक्तवा च मृदग्रं कषायकटुतिक्तकम् ।।

भक्षयेदंतपवनं दंतमांसान्यबाधयन् ।

A soft brush can be made by biting and chewing the tips of fresh stems of Arka, Nyagrodha, Khadira, Karanja, Arjuna or katunimba, mastication of stems acts as a good exercise for the teeth and gums.^[3]

The following table gives the stems which should be used for brushing the teeth by people having different constitutions.^[7] (Table - 2).

Table No. 2: Stems for Different Constitutions.

Constitution	Characteristic of gums	Stem Indicated	Taste
Vata	Thin, atrophic, dry & rough	Yastimadhu, khadira	Sweet
Pitta	Spongy, inflamed & red	Nimba, arjuna	Bitter
Kapha	Hypertrophic & whitish	Karanja, arka	Pungent
Rakta – pitta	Bleeding & spongy gums	Khadira	Astringent

Dantashodhan Churna (Tooth Paste / Power)

क्षौद्रव्योषात्रिवर्गाक्तं सतैलं सैन्धवेन च ।

चूर्णेन तेजोवत्याश्च दंतानित्यं विशोधयेत्।।

As general measure, one can use tooth powder consisting of equal quantity of Sunthi, Marica, Pippali, Tvak, Lavanga, Tamalapatra, Triphala, Khadira and Saindhava which, should be used as a paste after mixing it with Tila Taila. Before use, powder must be filtered through a fine cloth. ^[5]

Selection According to Constitution: One can use powders of Triphala, Trijataka with honey and Saindhava for person with Kapha and Pitta constitutions. For those with Kapha constitution, Trikaţu, with honey and Saindhava can be used as tooth paste. Massaging the gums daily with Triphala mixed with Tila Taila maintains them in healthy state.^[7]

Contra Indicated Stems

नैवश्लेष्मातकारिष्टविभीतधवन्वजान् ।

बिल्वबंभ्ल निर्ग्ण्डीशिग्रतिल्वकतिंद्कान्।।

कोविदारशमीपीलुपिप्पलेंगुद्गुग्गुलून।

पारिभद्रकमम्लीकामोचकयो शाल्मलीं शणम्।।

स्वादम्ललवणम्श्ष्कम स्षिरं पूत्तिपि^{च्छलम}्।

Slesmantaka, Tilva, Aristaka, Tinduka, Vibhitaka, Kovidara, Dhava, Sami, Bilva, Pilu, Nirgundi, Pippali, Sigru, Ingudi, Paribhadra Above stems are contraindicated for Dantadhavana.^[3,6]

Dantadhavankala

Datuna should be done twice a day^[1,6], followed by rinsing of mouth with hot water or cold water according to constitution.

Advantage of Dantadhavana

तद्दोगन्ध्योपदेहौ त् श्लेष्माणां चापकर्षति।

वैशधमन्नाभिरुचिं सौमनस्यं करोति च।।

- > It cleans the oral cavity.
- > It keeps the oral cavity healthy by its taste. Taste neutralizes the
- ➤ Kapha and helps to clear the viscid mucous secretions in the mouth.
- ➤ It is good exercise for periodontal ligament by masticating the stem.
- > It removes food particles.
- > Perceives the taste better.
- > Cheap and readily available.
- > Prevents pocket formation.
- ➤ Cleansing agent and gum masSa.ge action.
- Leads to anchorage of teeth in bony socket and makes them immobilized. [1,5]

Contraindication of Dantadhavana

Jvara, Ajirna, Chardi, Shvasa, Trsna, Aruci, Mukhagataroga, Kasa, Netraroga etc.

In the above diseases, Dantadhavana is contraindicated which does not specifically mean that oral care is to be avoided in these disorders. While going through the literatures minutely one clearly finds different medicated formulas mentioned as a therapeutic measure and for oral hygiene even in the alone contraindicated diseases.

Oral Care in Contraindication of Dantadhavana

Formulations like Pippalyadi Kalaka or Churna, and Tejohvajdi Churna etc. are used to keep them in the mouth for a long time of use them for Dantamanjana or in the form a Kavala or Gandusa.^[8]

Kavala / Gandusha (Gargling of Mouth)

Gandusa and Kavala both are types of local therapeutic measure for treatment of oral cavity disorders. Both are auxiliary methods; that are used for rinsing to food debris and for other therapeutic purpose. Detailed description of Gandusa and Kavala is as given below.

Kavala: Medicated fluids are kept in the mouth incompletely and asked to rotate in the mouth for a specific time and then asked to spit it out.

As per Sarangadhara, Kalka (medicated bolus) drugs are used in Kavala and Liquids are used in Gandusa. [6]

Gandusha: It is the process of holding any medicated liquid like Kvatha, Svarasa, Madhu, Ghirta, Taila, Usnodaka etc. in the mouth to its full capacity for a specific time without any movement inside and then asked to spit it out.^[6]

Duration of Gandusha: In Gandusa, one should hold the fluid in the mouth, till it is felt that the mouth is filled with kapha, nose and eyes start watering.^[5,6]

Benefits of Kavala and Gandusha: A proper therapy of Gandusa and Kavala brings about alleviation of disease, clears the mouth and stimulates the sense organs.^[5]

Jihvanirlekhana: It is also a part of cleaning the oral cavity. Cleaning of tongue is known as 'Jihva Nirlekhana'.^[1,6]

Material for Jihvanirlekhana

- ➤ A thin plate of gold, silver, copper or leaf or a thin wooden plate may be used as a tongue cleaner.
- > It should be soft and smooth with rounded edges. Its length should be ten fingers.

Advantages of Jihvanirlekhana

- It helps to get rid of waste products of food.
- > It helps to reduce foul smell of the mouth.
- ➤ It improves taste sensation. [1,6]

Nasya: Tila oil medicated with various medicines is used as nasal drops in different diseases of gums and teeth. These nasal drops act as reflex soothing agents for the nerves irritated by the diseased gums and teeth.^[1,6]

Danta Rasayana

दिने दिने कृष्ण तिलप्रक्ंचं समश्नतां शीतजलान्पानम्।

पोषः शरीरस्यभवत्यनल्पो दृढीभवन्त्यामरणाच्य दंताः।।

Chewing of 2-4 gms of black sesame seeds daily in the morning or sugarcane acts as tonic for the teeth. The dental and gingival tonics are as follows.

Bakul, Yastimadhu, Tila, Kadamba, Haritaki, Nyagrodha, Sankhabhasma, Arjuna, khadira, Nimba, etc.^[7]

Some important yoga's to Prevents the dental diseases and maintain oral hygiene

- Dashan sanskar choorana pratisarna
- ➤ Equal quantity of Sunthi, Marica, Pippali, Tvak, Lavanga, Tamalapatra, Triphala, Khadira and Saindhava which, should be used as a toothpaste after mixing it with Tila Taila.
- > Pringavadi lepa pratisarna
- Raktastambhaka choorna gandusha.
- ➤ Guda agni karma in krimidanta
- Kantkari seeds dhoopna in krimidanta
- ► laksha choorna + madhu pratisarna in dantasarkara. [7]

Pathya - Trindhanya, Yava, Mudaga, Kulattha, Jangal mansarasa, Karavellaka, Patola, Kapura Jala, Ushnodaka, Tambula, Katu, Tikta Dravyas.^[4]

Apthya

फलान्यम्लानि शीताम्बु रूक्षान्नम दंतधावनम्

तथाऽतिककठिनं भक्ष्यं दंतरोगी विवर्जयेत्

Sour fruits and food items (like curd, lemon, tamarind etc), cold water, dry and hard food items, These sour dietary items expose the teeth to various acids, which might dissolve the enamel of the teeth making them prone to various dental disorders.^[4]

CONCLUSION

The Healthy Status of the Tooth can effectively managed with Nidana parivarjana and regular practice of Dinacharya. Maintaining proper oral hygiene helps in preventing dental health and

other diseases of oral cavity. Early management of dental pathology helps in saving the teeth and its associated structures.

The use of herbal medicine has been successfully applied in dentistry as antiseptic, antioxidants, and analgesic. The natural phytochemicals play an alternative role in healing of oral infections and thereby improving immunity. However, well controlled clinical trials are required to validate the use of these traditional therapeutics strategies in the dental field.

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