

IMPORTANCE OF DANTADHAVANA, A DINCHARYA UPAKRAMA IN ORAL HEALTH***¹Dr. Smita Vinod Zambare and ²Mr. Milind Sardar**¹Associate Professor, Swasthvritta Dept, Uttarakhand Ayurvedic College, Dehradun.²Second Year BNYS, Bachelor of Naturopathy & Yog Sciences.***Corresponding Author: Dr. Smita Vinod Zambare**

Associate Professor, Swasthvritta Dept, Uttarakhand Ayurvedic College, Dehradun.

Article Received on 25/03/2022

Article Revised on 15/04/2022

Article Accepted on 05/05/2022

ABSTRACT

Oral dental diseases are emerging as considerable public health problems in India. To maintain good and proper health our great Aacharyas have given guidance of Dinacharya Upakrama in Swasthvritta. In Ayurveda, dental health or Dantaswasthya is very individualistic and varies with each person's constitution (prakriti). In India, using chewing sticks has been mentioned in ancient Ayurveda texts. It is believed that Dantadhavan drugs facilitate salivary secretion and possible help in plaque control, while some stems have an anti-bacterial action. Present day research has shown that all drugs described in Ayurveda have medicinal, anti-bacterial and anti-caries properties. Furthermore, Oral Hygiene methods are also mentioned as a part of Dinacharya, the role of which is needed to be expressed in proper way to reduce prevalence and risk factors of the diseases of Mukha Rogas, upon which the entire oral health as well as general health and hygiene revolves. In the Modern era, fast moving hectic lifestyle is creating many health problems. Improper eating habits like junk food, fast food, ice – creams, sweets, chocolates and addictions like tobacco, gutakha, smoking and alcohol consumption, oral unhygienic problems are arising progressively.

KEYWORDS: *Dinacharya, Dantadhavan, Dantaswasthya, Oral Health.***INTRODUCTION**

Oral diseases exert a negative impact on an individual's quality of life and also represent a huge burden for healthcare systems worldwide. Achieving optimal oral health through preventive efforts is a hallmark of the dental health and such efforts are geared towards encouraging patients to practice appropriate oral self-care behaviors. Achieving optimal oral and dental health requires a commitment to self-care, embracing preventive behaviours as well as the receipt of appropriate dental care. The improvement of personal oral health has been shown to be linked to dental education experience. Ayurvedic medicine is known to contain antimicrobial agents which are beneficial for prevention and treatment of periodontal disease.

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 (Ch.Su.6/103)

In Ayurveda, In India, using chewing sticks has been mentioned in ancient Ayurveda texts. It is believed that Dantadhavan drugs facilitate salivary secretion and possible help in plaque control, while some stems have an anti-bacterial action. Present day research has shown

that all drugs described in Ayurveda have medicinal, anti-bacterial and anti-caries properties.

The quantitative, qualitative and functional equilibrium of doshas pleasantness of Aatma, Mana and Indriyas is known as Swastha. (S. Su. 15/41)

In the Modern era, fast moving hectic lifestyle is creating many health problems. Improper eating habits like junk food, fast food, ice – creams, sweets, chocolates and addictions like tobacco, gutakha, smoking and alcohol consumption, oral unhygienic problems are arising progressively.

To maintain good and proper health our great Aacharyas have given guidance of Dinacharya Upakrama, which firstly tags. Oral dental diseases are emerging as considerable public health problems in India.

So we guide people for awareness of dental hygiene that also avoids different types of diseases of oral cavity which can occur at various stages of life.

Oral hygiene impacts Oral Health

Oral hygiene is practice of keeping the mouth and teeth clean to prevent dental problems, most commonly, dental

cavities, gingivitis, and bad breath. There are also oral pathologic conditions in which good oral hygiene is required for healing and regeneration of the oral tissues.

In the past several years, dental professionals (dentists and hygienists) have studied the importance of tongue cleaning as a way to maintain a high level of oral hygiene. Good oral hygiene is essential for preventing tartar build-up which causes the problems mentioned above. This is done through careful, frequent brushing with a toothbrush, combined with the cleaning of oral cavity to prevent accumulation of plaque on the teeth.

Tongue cleaning is a component of oral hygiene measure, as tongue coating is known to be the predominantly implicated cause of halitosis. Several volatile sulphur compound producing bacteria have the ability to colonize the dorsum of the tongue in periodontal healthy subjects and they are reduced by tongue cleaning tooth discoloration and staining.

The surface of the tongue may be viewed as an excellent breeding ground for different bacteria. These microorganisms colonize and multiply on the protein-rich areas of the tongue, and eventually, through the saliva, reach all areas of the mouth including the teeth and gums. These bacteria are considered as major contributors to periodontal problems, plaque on the teeth, tooth decay, gum infections, gum recession and even tooth loss.

Mukha or Oral Cavity and its part and functions

The physiological functions of Mukha are

1. Churning of food and making a bolus mixed with Saliva that can enter the esophagus easily,
2. Perception of taste,
3. Vakpravrutti i.e. speech etc.
4. **Teeth** are hard instruments or organ of chewing inside the mouth.
5. (Ayurvediya Mahakosha, Ayurvediya Sabdakosha Part 1, pg.676)
6. Food etc eating material crushed by which instrument those are teeth. Grinding equipment situated inside the mouth which is a type of bone are teeth
7. Teeth are one type of bone that is "Ruchakasthi".
8. The word 'ruchaka' means that which imparts taste and 'Asthi' means bone. Thus ruchaka-asthi means bones associated with the function of imparting taste.
9. **Saliva:** In Ayurveda, saliva is considered as Bodhakakapha. Saliva is very thin liquid and it conveys sensation. The large quantity of saliva is one of the reasons for dental diseases.
10. Oral cavity is all the time moist with saliva. Teeth and gums are always in contact with saliva. Normality and abnormality of teeth and gums are dependent on properties of saliva.
11. Similarly, the acidity or alkalinity of saliva is increased, again it results in dental diseases. If

saltiness of saliva is increased, the Agni in Ruchakasthi, becomes Manda, and decreases, ultimately nutrition of teeth is hampered and quantity of Mala is increased and deposited on teeth as plaque.

Doshas Present in Teeth

Vaat, Pitta and kapha all the three are present in teeth, but since tooth is type of bone, Bata is more dominant. If Vata is alleviated, tooth becomes weak. Cavities are forms. If Vata is in normal condition, teeth are healthy.

Oral Hygiene Methods and Its Importance in Ayurveda

Ayurveda was the first science to give detailed description of various therapeutic measures, not only radical removal of the causative factors but also the restoration of Doshik equilibrium. In Ayurveda, the ancient authors have recognized the importance of medicines, especially of the herbal medicines. They have focused their attention on the plants and their preparations, in the preservation of health and cure of diseases. Large number of plants have been identified and recapitulated with their properties and uses. The selection of the proper drug in the management of disease is very important. Taking this fact into consideration, Ayurvedic physicians have formulated single as well as compound drugs for the prevention and cure of various elements.

The Ayurvedic texts quote about the ideality of the drug; There are many single and compound drugs prescribed in our texts.

It is often the total effect of all the ingredients in the formula rather than the action of individual drugs that plays a vital role in therapeutics. As many systemic and local therapeutic applications have been mentioned in Ayurvedic classics for the treatment of Dantarogas like; Dantadhavana, Gandusha, Kavala, Pratisarana, etc. all of these are helpful in improving oral hygiene.

Dental diseases are caused by bad oral hygiene. It is characterized mainly by discoloration and cavity formation. Neglecting oral hygiene method may allow deposition of food particles and microorganisms. The bacterial colonies convert in plaque and demineralization of the tooth resulting decay of the tooth.

Dental diseases are chronic and silent disease. The infections of the mouth play an important role in the production of disease in the gastro-intestinal tract. Ayurveda has recommended Dinacharya regimen to maintain good health.

Ayurveda aims first at maintaining a healthy body and preventing ailments by adopting a proper, healthy, life style. To fulfill this aim, the 'Swasthya Chatushkahas been described in Charaka Samhita Sutrasthana which includes daily regimes in the form of Dinacharya,

seasonal regimes in the form of R̥itucharya, dietic regimes as well as behavioral patterns described under Swasthavritta.

Explaining the ways of maintaining healthy and preventive measures, Chakrapani says that it is done in two ways – firstly by providing nourishment to the constantly decaying body through pure diet and behavior and secondly by averting the cause of ailments just as a lamp is managed by providing oil and wick and also by averting the disturbing factors such as insects, wind etc. (Ch. Su. 5/11)

The components forming the oral cavity are involved in some of the most important physiological functions like churning, deglutition, taste, speech, metabolism etc., to ensure that these functions are properly carried out; it is essential to take care of the oral cavity by maintaining good oral hygiene.

Oral Hygiene Method

Tooth brush is such a cleaning tool which cleans interdental area, pits, fissures, material alba, plaques etc. provided the selection of the toothbrush and technique is proper. Due to lack of knowledge of the correct brushing technique, plaque is not removed completely. Improper technique and bristles damages the enamel and its frequent use leads to increased friction leading to injury to the enamel and cause abrasions of tooth surface.

Need of Ayurveda (Daily Regimen) in Oral Health

Dental problems is very common in the world and involves all the age group due to bad oral hygiene and bad habits like chewing tobacco, smoking etc. Dantarogas are silently progressing in nature. Generally dental disease is neglected by the patients till the pathogenesis become irreversible. Improper management in early stage leads disease to the chronic phase. Dental disease is the problem related to the improper oral care, if in early stage condition is neglected by the patients, the disease finally resulting into tooth loss.

It is the need of the time to drive a treatment protocol which helps the patients to overcome this harmful condition. It is amazing that even with the available literature; practically all the dental disorders mentioned, described with the management and treatment in Ayurvedic text. It was assumed that the nature provides both the diseases and the drug together and gave a concept of protection, restoration and regeneration of dental health.

In Ayurvedic texts a good numbers of medicines are explained for strengthening the teeth and gums. These remedies are made from various plants and applied to the gums & tooth in the form of Choorna. Majority of the ingredients are having Katu, Tikta, Madhura and Kashaya rasa, Laghu, Ruksha and Tikshna Guna and Krmighna, Dantadhardhyakara properties. Also

mukhashodhana, Sungandhi, Ruchikara, Krimighna properties.

Dantadhavana (Dincharya Upakrama)

Animals never clean their teeth; probably man in ancient times also ever cleaned his teeth, as his food contained lot of hard and rough stances, which had a natural cleansing action on teeth. With civilization, man started using 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 and the cooked food sticking to the dental cervices serves as 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 that matter.

It means cleaning teeth by means of brushing, Manjana, Pratisarana, etc., each tooth should be brushed individually by Kurchaka, which is a soft tooth brush made from medicated plants. (S.Chi. 24/8)

Datun (Tooth Brush)

Datun is a mechanical device used in ancient time to keep the Gingiva in healthy state and clean the oral cavity. Biting and chewing the tips of fresh stems can make a soft brush. One should take care that the gums are not hurt while teeth are brushed.

Technique of Brushing Teeth

One should brush in the vertical direction from bottom to top. The tooth brush should be rotated over the gums and the teeth in a vertical manner i.e. from below upwards in the lower jaw and from above downwards in the upper jaw. (S.Chi. 24/8, A.S.Su.3/22)

Indicated stems for Dantadhawan in Ayurveda

- Arka - Malati -Nyagrodha
- Asana - Khadira -Karvira
- Karanja - Amra -Arjuna
- Katunimba - Apamarga

(Ch. Su.5/73, S.Chi. 24)

- The stems mentioned above should be healthy, soft, and straight without any leaves and knots and picked from a tree growing in a clean place.
- Nimba (Neem) is best among bitter ones, Khadira is the best among astringent drugs, Madhuka is the best among sweet drugs and Karanja is the best among the pungent drugs.
- Ideal nature of Drugs- Twig should be devoid of branches and knots. It should be grown in good land and every day new twig should be used for tooth brushing.
- The stem should not be dry, sticky and foul smelling.
- The stems should be 1 finger in breadth, 10-12 fingers in length and should have bitter, pungent or astringent taste. Swadu, Amla, Lavana, Rasa should be avoided.

- The above stems are best for Dantadhavana according to Prakruti. A person with Pitta constitution should use a bitter stem like Katunimba, Arjuna. A person with Vata Pitta constitution should use a stem of Nyagrodha etc. A person with Kapha constitution should use pungent such as Karanja or Arka. Children and adults with Vata Pitta constitution should use sweet stems of Glycerrhiza.
- The stem should be chewed until it is broken into a soft brush like form.

Indicated Rasas for Dantadhavana

One should also use twigs of those plants that are Katu, Tikta and Kashaya rasas i.e.astringent, pungent, and bitter in taste for dantadhavana.

Time of Dantadhavan

- In the morning after passing the urine and faecal matter, attend to ablutions and then clean teeth and again in night before sleep.
- Datuna should be done twice a day (A. S. Chi. 5/48) followed by rinsing of mouth with hot water or cold water according to constitution. Keeping in view the condition of his body, the individual should after passing the urine and faeces, attend to ablutions, thereafter, he should clean his teeth. Chkrapani explained that two times means in the morning and at night. (S. Chi. 24/4 –12, Ch.Su. 5/74-75)

Advantage of dantadhavana

1. Removes the impurities of tongue, teeth and mouth
2. It brings about freshness, takes away bad odor and coating on teeth
3. It keeps the oral cavity healthy by its taste. It produces alleviation of Kapha, clearness in the mouth Taste neutralizes the Kapha and helps to clear the viscid mucous secretions in the mouth.
4. It is good exercise for periodontal ligament by masticating the stem.
5. It removes food particles. It cleans the oral cavity.
6. Perceives the taste better.
7. Cleansing agent and gum massage action.
8. Prevents pocket formation.
9. Leads to anchorage of teeth in bony socket and makes them Immobilized.
10. Dantadhavan Benefits in improving Eye sight.
11. It purifies the Eyes, Nose & Ears (Nasa, Nayana, Sravana Shuddhi)
12. Cheap and readily available.
13. Stimulates appetite and desire for food. (Su.Chi.24/9,10, Ch.Su.5/72)

Manjana

They are substances used with toothbrush or other applicator on tooth surface and gingiva for cosmetic and sanitary purposes and for applying specific agents to tooth surface for preventive and therapeutic purposes. It is also used as tongue cleaner by Pratisarana. If a person is contra indicated for Dantadhavana with Datun, then he is advised for Pratisarana.

In Absence of Twig

Powder of Triphala, Trikatu and Trijataka can be used with saindhav and Madhu. (S.Chi.24/7, A.S.Su.3/15)

Tooth Powder or Tooth Paste

As general measure, one can use tooth powder consisting of equal quantity of Shunthi, Maricha, Pippali, Twak, Lavanga, Tamalapatra, Triphala, Khadira and Saindhava which, should be used as a paste after mixing it with Tila Taila. (Ch. u.5/73)

Before use, powder must be filtered through a fine cloth.

Selection of Drugs for Teeth Brushing

Selection of twig for tooth brush should be done on the basis of seasons, dosha, rasa and virya after getting up. Generally Neem sticks are advised for Datun because of its properties and easily availability.

One can use powders of Triphala (Aamala, Hirada, Behada), Trijataka (Tvak, Ela, Patra) with honey and Saindhava for person with Kapha and Pitta constitutions. For those with Kapha constitution, Trikatu (Sunth, Marich, Pippali) 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. (Su.Chi.24/5)

Advantages of Manjana

- It removes food particle.
- It removes also Impacted food between inter dental space.
- It decreases secretion of excess Saliva.
- It regenerates the gingiva and increases the keratinization.
- It increases in mitotic activity of epithelium.

Gargling of the Mouth

Gandusha 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 dislodge food debris and for other therapeutic purpose.

Jihva Nirlekhana

It is also a part of cleaning the oral cavity. Cleaning of tongue is known as 'Jihva Nirlekhana'.

Material for Jihva Nirlekhana

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 (Tongue Scrapping)

1. Nihanthi Gandha Virasyam Jivha Dantasya Mala Shodhanam.
 2. Removes the impurities of Tongue.
 3. Removes the bad odor of mouth and coating of the tongue which gets accumulated at root of the tongue.
- ✓ It helps to get rid of waste products of food.
 - ✓ It helps to reduce foul smell of the mouth.

✓ It improves taste sensation. (S. Su. 3; S.Chi.24; A. Hr. Su. 2/3,6; Ch. Su. 5/71-78; A.S. Su 22)

Pratisarana

Application of powders and paste of various medicines having various properties like astringent, cooling, anti-inflammatory, analgesic, cleansing etc. to the gums depending on the disease and the condition of gums should be undertaken.

Definition of Pratisarana

To rub or gently massage against a base is called Pratisarana. (Sh. U.10)

A gentle massage with tip of the finger for a short duration is called Pratisarana. (S.Chi.40/69)

Benefits of Pratisarana

- It cleans oral cavity, teeth, gums, tongue.
- It acts as mouth freshener.
- It stimulates the taste buds & controls thirst, foul smell, tooth ache etc
- It prevents drying of the mouth. It also controls over Salivation. (B. P.Part 1. Dhumapanadi,38)

Action of Pratisarana

- Direct through gingival epithelium.
- By massage action on gingiva.
- Mechanical removal of food particles

Gargling

Gargling with hot water, various decoctions and medicated oil and ghee are useful in various conditions of gums and teeth. Apart from the action on the entire oral cavity, the various recipes exert cleansing, homeostatic, tonic, astringent, heading or anti-inflammatory action on the gums and teeth. It removes bad taste, odor of mouth and gives taste.

Mukhaswasthya (Oral health & hygiene)

Oral health (Mukhaswasthya) is the state of complete physical appearance with proper functioning of all organs and elements of oral cavity i.e. teeth, gums, tongue, saliva and mucosa, not merely absence of diseases.

Dental health care is the provision by professional and individual persons to maintain health and treat illness or symptoms in oral cavity. Mukhaswasthya (oral health) is maintained by strictly following the proper cleaning methods of Dinacharya Upakrama and preventive measures advised in Ayurvedic texts.

Oral hygiene is the science that deals with the preservation of health. This is the method to keep the mouth and teeth clean and healthy. Good oral hygiene reduces the incidence of tooth decay and other related diseases. It prevents gingivitis and helps halitosis. Personal care includes important aspects of personal oral hygiene i.e. daily removal of dental plaque by proper tooth brushing.

BIBLIOGRAPHY

1. Charak Samhita: Agnivesh Charak Chandrika Hindi Commentary Edited by Bramhanand Tripathi 4th Ed'n Chaukhambha Sanskrit Series Varansi, 1996.
2. Shshrut Samhita: Sushrut, Ayurveda Tatva Sandipika Part - 1,2, Hindi commentary edited by Kaviraj Ambikadatta Shastri, 17th Ed'n Chaukhambha Sanskrit Sansthan, Varanasi, 2003.
3. Ashtang Hridaya: Vagbhat Vidyatini Hindi commentry. By Atridev Vidyalkar Edited by Yadhunanda Upadhyaya. 11th Ed'n, 1993.
4. Ashtang Sangraha: English translation by Prof. K .R. Shrikant Murthy.
5. Chaukhambha Orientaliya. Varanasi 2nd Ed'n, 2000.
6. Textbook of Preventive Dentistry by Satish & Shaleen Chandra, Jaypee Publication Dehli, reprint 1999.
7. Short Textbook of community and Preventive Dentistry by Jayprakash K., Jaypee Publication Dehli, reprint, 2004.