



Review Article

ROLE OF ORAL HYGIENE AND AYURVEDIC MANAGEMENT OF GINGIVITIS (*UPAKUSHA* AND *PARIDAR*): A CONCEPTUAL STUDY

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ABSTRACT

Oral diseases are the commonest Non-Communicable Diseases (NCD). Gum ulcerations, bleeding and bulges associated with pain, burning and itching sensation are common symptoms of *Upakusha* mentioned in Ayurveda. While *Paridara* is a later stage, it includes gangrenous gum and bleeding while spitting. These diseases affect teeth as well as the complete body. Maintaining the positive health in healthy individuals and treating the diseased persons are the two main objectives of Ayurveda. In case of oral health, oral hygiene plays a major role in hygiene maintenance well in order to cure a disease. Ayurveda involves *Dantapavana, Danta Dhavana, Jihva nirlekhana, Nasya, kavala* and *Gandusha* to maintain oral hygiene and has several medicinal preparations to cure these diseases and scientific validations of the Ayurveda Dental Health practices could justify their role in dental care. In this article, an attempt has been made to spread substantial awareness in society about oral hygiene as well as about the significance of Ayurvedic principles for dental care.

INTRODUCTION

Ayurveda remains one of the most ancient and yet living traditions documented and practiced widely in India.^[1] It has time honored and philosophical and experimental basis to it. The concept of health and disease in Ayurveda is totally based upon the uniqueness of individuals^[2]. Ayurveda is the science of 'Ayu' or life and is mainly focused on maintaining health of healthy ones and curing the diseased ones^[3]. Principles of Ayurveda hold remarkable value in the present times. The present day Ayurveda has undergone many changes as per the need of the day but it's important principles have remained unchanged^[4]. Hygiene is a set of practices performed for the preservation of health^[5]. According to World Health Organization (WHO hereafter), hygiene refers to conditions and practices that help to maintain health and prevent the spread of disease^[6].

Personal hygiene refers to those practices performed by an individual to take care for one's bodily health and well-being. Hygiene in everyday life settings plays an important part in preventing spread of the infectious diseases. WHO defines oral health as 'a state of being free from chronic mouth and facial pain and oral throat cancer, oral infections and sores, periodontal (gum) disease, tooth decay, tooth loss and other diseases and disorders that limit an individual capacity in biting, chewing, smiling, speaking and psychosocial well-being^[7]'. To put it succinctly, oral hygiene is the practice of keeping one's mouth clean and free of disease and other problems including bad breath.

Oral health begins with cleaning teeth, keeping the areas where teeth meet the gums clean to prevent gum disease, while keeping your teeth surface clean which helps one stave off cavities and gum diseases. Ayurveda, as the ancient Indian system of medicine, describes certain principles of personal hygiene related to oral health. These principles are described in classical texts of Ayurveda in their own parlances. Integrated conceptual approach towards maintaining good oral hygiene through Ayurveda involves *Dantpavana*, that means *Dattuna* or chewing sticks, which can be co-related with tooth brushing now a

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days; *Jihvanirlekhana* for cleaning tongue and *Kaval Gandusha*- oil pulling and nutritious diet for oral health. Oral diseases affect people throughout their lifetime causing pain, discomfort, disfigurement and even death. Gingivitis is inflammation of the gums. It is most common form of periodontal diseases. Any inflammatory condition of gums can be correlated with *Paridara* and *Upakusha* diseases mentioned in Ayurveda. *Upakusha* is characterized by swollen gums with burning and itching sensations and sometimes results in exuding blood, while *Paridara* is later stage wherein gums become gangrenous^[8]. To prevent or cure these ailments, various treatment principles that are explained in Ayurveda are mentioned in this article.

OBJECTIVES AND METHOD

In the aforementioned context, this paper aims to suggest various methods of oral hygiene mentioned in Ayurvedic texts. It explores and recommends various principles of treatment of *Paridar* and *Upakusha* (gingivitis) which can be adapted in daily life. Based on these major objectives, the paper aims to spread awareness about classical oral hygiene methods and to prevent oro-dental diseases in the society. To address these objectives, the paper has reviewed different Ayurvedic texts and research journals. It also draws on assessing the role of hygiene from modern perspective.

Review of Literature

Globally, the greatest burden of oral disease has been on the disadvantaged and the poor population groups as these diseases are common among them since ages. Ayurveda has also dealt with dental and periodontal disorders in detail. Acharya Sushruta described 15 types of periodontal diseases. Periodontists has classified them further with different symptoms. Among the young population, the most common and mild form of gum disease is Gingivitis and among the elderly, it is periodontitis.

The major potential factors that affect the oral health^[9] are:

1. Smoking
2. Poor oral hygiene
3. Diabetes
4. Medications which can decrease saliva in mouth and immunosuppressants.
5. Family history
6. Infections such as HIV and AIDS
7. Hormonal changes in females.
8. GERD (gastro esophageal reflux disorder) as frequent vomiting.
9. Obesity
10. Inadequate nutrition, including vitamin C deficiency

Further, page and Schroeder categorize the periodontal inflammatory changes of periodontal disease into four histopathological stages.^[10]

Stage 1 – The initial lesion

Stage 2 – The early lesion

Stage 3 – The established lesion

Stage 4 – An advanced lesion

Clinical presentation of these lesions involves mild symptoms like sensations to advanced ones where there is difficulty in function. For treatment, commonly used methods involve good oral hygiene maintenance, advocated with medications like bactericidal, fungicidal, nutritional supplements that promote fast healing. Surgical procedures are also considered for better recovery and function. These stages can be co-related with *Upakusha* and *Paridar* disease mentioned by Acharya Sushruta. In *Paridara*, gums become putrefied, fall off and bleed and are caused by *Rakta*, *Kapha* and *Pitta dosha*. *Upakusha* is the disease in which the gums become marked by a burning sensation and suppuration and the teeth become loose and shaky in their gums as a consequence and may bleed by touch. It also includes slight pain and the entire cavity of the mouth becomes swollen and emits a felid smell. This disease is caused due to vitiated *Rakta* and *Pitta*^[11].

The prevention and treatment of chronic gingivitis is important for maintenance of good oral health as well as general health. In this regard, the methods of oral hygiene towards maintaining good oral health are as following:

Dantadhavan and *Dantapavana*

Pratisarana

Chewing mouth freshening herbs

Jihvanirlekhana

Kavala and *Gandusha* and *Nasya*

To elaborate further-

Danta Dhavana or Cleaning the Teeth^[12-15]

This method is mentioned by Ayurvedic Acharya in *Dincharya* or one's daily routine. A small piece of twig or *Dantapavan* or *Dattouna* with its bark is taken from some medicinal plants like *Nimba* (*Azadirachta Indica*), *Arka* (*Calotropis procera*), *Arjun*, *Dhav* etc and is used by crushing its end. It should be fresh and straight. Its thickness should be equal to *Kanishthika anguli* (little finger) and the length should be 12 *Angula*. These twigs be *Kashaya*, *Katu*, or *Tikta* in taste. Acharya Sushruta also mentioned that these must be used according to *Rasa* like a twig of *Khadira* is best *Kashaya rasa* (astringent), for *Madhura* (sweet) *Rasa Madhuk* (*Glycyrrhiza glabra*), for *Tikta* (bitter) *Nimba* and for *Katu* (acid) *Katuki* is taken as best.

The benefits of *Danta pavana* include^[16,17,18]

1. Getting rid of bad breath
2. Increasing appetite
3. Chewing on these twigs causes attrition of biting surface and increase the production of salivary secretion
4. It helps to control plaque as some stems has anti-bacterial action^[19]

Jihvanirlekhana^[20,21]

Cleaning method for tongue with the help of scraper is known as *Jihvanirlekhana*. These scrapers should be made up of metals or by twigs, should be of approximately 12 fingers large and curved.

Benefits

1. Removes bad breath
2. Improves taste sensation
3. Clinical evidence have found that *Jihva nirlekhana* on daily basis can eliminate aerobic bacteria and decreases bad odour.^[22]

Pratisarana^[23,24]

It is a method to clean teeth with the help of powdered medicinal drugs like *Trikatu*, *Tejovati* etc. It can be massaged gently with index finger. After that, it includes pouring some water in mouth and gargling. This can reduce tooth pain and can take over bad breath.

Sugandhi dravya dharana - Mouth Freshness^[23]

This includes chewing of *Jatiphala* (*Myristica* fragrance, *Karpura* (*Cinnamomum camphora*), betel nut (*Areca catechu*) etc which keeps the mouth fresh, tasty and perfumed. Chewing two betel leaves, betel nuts, slaked lime and extract of *Khadira* is taken as ideal combination for mouth freshening^[24]. Appropriate timings for this can be after sleep, food, bath and vomiting.^[25]

Gandusha and Kavala/Oil Pulling^[26-29]

These procedures are described in *Dincharya* i.e., the daily regimen and are useful for prevention of oral diseases and to maintain good oral health. Filling the mouth with oil or medicated water (*Kwatha*) daily and holding for a few minutes without moving it inside the oral cavity is called *Gandusha*. It is to be held inside the mouth till there is secretion of tears from the eyes or watery discharge from mouth.

Kavala is a process of holding small quantity of liquid as compared to *Gandusha* inside the mouth. It can be riskily movable. Their benefits are^[30-32]

1. *Gandusha* has been used to prevent decay, oral bad odour, gum bleeding, cracked lips.
2. Strengthens the teeth, gum and jaw
3. Leads to feeling of freshness
4. Maintains clarity of voice
5. *Kavala* can remove loss of appetite, bad taste, dirt and excess salivation from mouth.

6. Can also be used by patients wherein brushing is contra-indicated as ulcer, fever, indigestion.
7. Both *Kavala* and *Gandusha* can protect the oral cavity from infections and inflammations by antioxidant property.

Diet: A nutritious, balanced diet is essential for your overall health, and it's important for your oral hygiene, too. Be sure to include plenty of dairy products, fruits, vegetables, and whole grains in your diet. Some foods that are especially good for oral hygiene: cheese, yogurt, milk, and peanuts. These foods can help remove sugars from the tooth surface and protect the teeth from plaque. Some herbal drugs used for oro dental diseases are- *Karanja* (*Pongamia pinnata*), *Karveera* (*Nerium indicum*), *Nimba* (*Azadiracta indica*), *Trikatu*, *Arka* (*Calotropis gigantea*), *Malati* (*Jasminum grandiflorum*), *Arjuna* (*Terminalia arjuna*) and *Khadira* (*Acacia catechu*).^[33] *Danta* and *Asthi* are same in composition, all the components which are useful for bone formation are also applicable for teeth. Acharya Charaka mentioned that cartilages are also formed with bones and the factors which are responsible for the growth of basic principle will also act to enhance its subdivisions.^[34,35]

Foods for Optimum Oral Health^[36]

Calcium rich foods, such as low fat or fat-free milk, yogurt and cheese, and fortified soymilk help promote strong teeth and bones. Other sources of calcium include tofu (made with calcium sulfate), canned salmon, almonds and some dark green leafy vegetables.

Phosphorus, a mineral found in eggs, fish, lean meat, dairy, nuts and beans is good for strong teeth.

Vitamin C promotes gum health, so eat plenty of sources, including citrus fruits, tomatoes, peppers, broccoli, potatoes and spinach.

Furthermore, Some Oral Hygiene Methods which are Used Nowadays are

Brushing^[37]

The act of scrubbing teeth with the toothbrush and toothpaste is primarily meant for cleaning teeth. It can help in prevention of cavity, periodontal diseases and tooth loss. One study found that brushing immediately after an acidic meal (such as diet soda or common breakfast foods like orange juice, citrus fruit, dried fruit, bread, or pastries caused more damage to enamel and dentin compared to waiting 30 minutes. Flushing the acid away with water or dissolved baking soda could help reduce acid damage exacerbated by brushing. The same response was recommended for acid reflux and other acidic meals. Researchers and dentists have concluded that brushing immediately after consuming acidic beverages should be avoided. It is better to brush before breakfast or dinner. If

brushing after a meal wait at least a half hour after eating to prevent tooth damage. To protect tooth enamel, brushing immediately after waking is better than brushing after breakfast. If it is necessary to brush after breakfast, try to wait between 30 and 60 minutes before brushing. Brushing at any point in the morning is still better than skipping the step of brushing at all.

Flossing^[38]

It is a process of interdental cleaning to remove food and dental plaque between the teeth or the places where toothbrush cannot reach. Its regular use is a part of oral cleaning to maintain oral health. A cord or thin filament is popularly used for this procedure. The procedure involves these steps - firstly use about 18 inches of floss. Hold the floss stretched tight between your thumb and first finger. Then gently curve the floss around the bottom of each tooth making sure that you go under the gum line and lastly slide the floss gently up and down between your teeth.

Rinsing^[39]

A liquid is held in mouth passively or swilled around the mouth by contracting perioral muscles or moving head. Usually mouthwashes are antiseptic solutions intended to reduce the microbial load in the oral cavity. Commonly used solution now days are chlorohexidine, essential oils (eucalyptol, thymol, methyle salicylate and menthol), florides, oxygenating agents and cosmetic antiseptic mouth washes.

Treatment principles of *Paridara* as mentioned in Ayurvedic texts^[40,41]

1. *Raktamokshana*: bloodletting.
2. *Gandusha*: the decoction of *Sunthi* (dry ginger), *Triphala*, *Nagarmotha*, *Sarshapa* mixed with *Rasanjana* should be used.
3. Apply the paste of *Priyangu*, *Musta*, *Triphala* along with *Ghrita* over effected gums.
4. *Nasya* of oil or *Ghrita* prepared with *Triphala*, *Madhuka*, *Utpala* and *Padmaka*.

Treatment principles of *Upakusha*^[42]

1. *Sanshodhan*- Body should be evacuated from both ends (by emesis and purgation) and also head (by *Shirovirechana*).
2. *Asarika Visaravana*- Blood should be draining out by rubbing with leaves of *Kakodumbara* and *Gojihva*.
3. *Pratisarana*- With the help of *Kavana* (salt) and *Trikatu* mixed with honey.
4. *Kavala*- *Pippali*, yellow mustard, *Sunthi* and macula fruits all mixed with lukewarm water should be used.
5. *Kaval* and *Nasya*- Ghee cooked with *Madura Aushadhi* as *Kakolidi guna* is used.

These Ayurvedic medicines have anti-inflammatory, anti-bacterial, anti-fungal, anti-viral, antioxidant, analgesic and anti-ulcer pharmacological actions.

CONCLUSION

Prevention and cure are the two main aspects to maintain health. Deriving from the existing scholarship or research, these two aspects are described above in great detail for oral health like oral hygiene for prevention and medicated procedures to cure some non-communicable diseases of oral flora. To reiterate, inclusion of practices such as *Kaval*, *Gandusha*, *Jihva nirlekhana*, *Danta dhavana*, *Nasya* in daily regimen helps to keep a person healthy, clean and happy. Similarly, some home remedies are also described above in the article to help the patient of gingivitis (*Paridar* and *Upaksha*) which are easy to practice and are proved scientifically helpful to cure it.

REFERENCES

1. C.Dwarkanatha, the fundamental principles of Ayurveda, Krishnadas academy, Varanasi, India 1957
2. Pandit Kashinath Shashtri, Dr Gorkhnath Chaturvedi. Charaka samhita vidyotini vol - 1, Chaukhamba Bharati Acedamy, 2014, p no -48, Verse -124.
3. Dr. Lakshmidhar Dvivedi, Dr B K Dwivedi, Dr. P K Goswami, Agnvesha pranita Charaka Samhita, Chakrapani Dutta commentary Ayurveda Dipika, Chaukhamba Krishnadas academy Varanasi, 2019 p no - 625, verse - 26
4. Janamejaya Samal, The concept of public health in Ayurveda. International Ayurvedic Medical Journal, Vol-1, Issue -2, March - April 2013
5. Wikipedia: <http://en.Wikipedia.org/wiki/hygiene>
6. [en.m.wikipedia.org/hygiene:overview-world health organisation \(WHO\)](http://en.m.wikipedia.org/hygiene:overview-world_health_organisation_(WHO))
7. <https://www.who.int/news-room/fact-sheets/detail/oral-health>
8. Dr. Adikanda Biswal, Dr Rasmila Routray, A textbook of Shalakyta tantra, Vol II Chaukhamba publications p no 262,263.
9. [https://www.mayoclinic.org>etc-20354473/diseased condition/periodontist/symptoms-causes](https://www.mayoclinic.org>etc-20354473/diseased-condition/periodontist/symptoms-causes).
10. Michael G. Newman, Henry H Takci, perry R.Klockkevold, Carranza's clinical periodontology, Saunders elsevier, 2006, p no 167
11. Kaviraj Dr Ambikadutt Shashtri, Sushruta Samhita, Ayurveda Tatva sandikpika, Vol -I, Chaukhamba Sanskrit sansthana, Varanasi, India, reprint- 2015, p no 384., Verse -22,23,24
12. Dr Keval Krishan Thakarala, Shushruta Samhita, Dalhana commentary, Nibandha samgraha, Gaydas commentary, Nyaya Chandrika, Chaukhamba orientalia, Varanasi, India 2019, p no 2019 p no 419 chikitsa sthan 24 verse 4-7
13. Dr Lakshmidhar dvivedi, Dr BK Dvivedi, Dr PK Goswami, Charaka Samhita, Chaukhamba Krishnadas academy, Varanasi, India 2019, p no 147., verse 71 to 73.

14. Dr R. Vaidyanathan, A hand book of Ashtanga samgraha, Sutra sthana, Chaukhamba aur Bharti prakashana, Varanasi, India, 2006, Dinacharya Adhyaaya verse 3-6 Page no 41.
15. Dr Keval Krishan Thakrala, Sushruta Samhita, Dalhan commentary Nibandha samgraha, Gaydas Commentary Nyaya Chandrika, Chaukhamba orientalia, Varanasi, India 2019 p no 625 chapter 40, verse 69.
16. Dr Rajneesh V Giri, synopsis of Ashtanga Harudya, Chaukhamba Orientalia, 2014, Varanasi, india 2014, p no 128
17. Dr Keval Krishan Thakarala, Shushruta Samhita, Dalhana commentary, Nibandha samgraha, Gaydas commentary, Nyaya Chandrika, Chaukhamba orientalia, Varanasi, India 2019, p no 2019 p no 419 Chikitsa sthan 24 Verse 9
18. Kaviraja Atrideva gupta, Ashtanga Hridayam, Vidyotini, Chaukhamba prakashana, Varanasi, India 2016, Sutra sthana chapter 2 verse 2 -3, p no 21.
19. G H Naik, K I Priyadarshini, J G Satav, M M Banavalikar, D P sohni, MK Biyani Comparative antioxidant activity of individual herbal components used in Ayurvedic medicine, photochemistry 2003 p no 94 -104
20. Dr Lakshmidhar dvivedi, Dr BK Dvivedi, Dr PK Goswami, Charaka Samhita, Chaukhamba Krishnadas academy, Varanasi, India 2019, p no 147, Verse 75
21. Dr Keval Krishan Thakarala, Shushruta Samhita, Dalhana commentary, Nibandha samgraha, Gaydas commentary, Nyaya Chandrika, Chaukhamba orientalia, Varanasi, India 2019, p no- 420 Verse -13,14
22. A. Kardam, B.S. Prasad D. Bagdiya V. R. Hiremath effect of Ayurvedic herbs on control of plaque and gingivitis a Randomised controlled trail ayu 2011 p no 532 (<https://pubmed.ncbi.nlm.nih.gov/22661849>)
23. Dr Keval Krishan Thakarala, Shushruta Samhita, Dalhana commentary, Nibandha samgraha, Gaydas commentary, Nyaya Chandrika, Chaukhamba Orientalia, Varanasi, India 2019, p no - 419, verse - 8-11
24. Dr Lakshmidhar dvivedi, Dr BK Dvivedi, dr PK Goswami, Charaka Samhita, Chaukhamba Krishnadas academy, Varanasi, India 2019, p no 148, verse 76- 77
25. Dr. R Vaidyanath, A Hand book of ashtang sangraha, sutra sthan, Chaukhamba subharati prakashana, Varanasi, India p no 47, verse 37,38
26. Dr Lakshmidhar dvivedi, Dr BK Dvivedi, Dr PK Goswami, Charaka Samhita, Chaukhamba Krishnadas academy, Varanasi, India 2019, p no 148, chapter -5, Verse 78 to 80
27. Dr Keval Krishan Thakarala, Shushruta Samhita, Dalhana commentary, Nibandha samgraha, Gaydas commentary, Nyaya Chandrika, Chaukhamba orientalia, Varanasi, India 2019, p no 420, chikitsa sthan, chapter-40, Verse- 62, 63.
28. Kaviraja Atrideva gupta, Ashtanga Hridayam, Vidyotini, Chaukhamba prakashana, Varanasi, India 2016, sutra sthana chapter 22 verse 11- 12, p no 179,180.
29. Prof. K. R. Srikantha Murthy, Sharngadhara samhita: A treatise on Ayurveda, Chaukhamba orientalia, Varanasi, India reprint edition 2009, p no - 233, Uttara khanda, chapter - 10, verse - 4, 5.
30. Dr Keval Krishan Thakarala, Shushruta Samhita, Dalhana commentary, Nibandha samgraha, Gaydas commentary, Nyaya Chandrika, Chaukhamba orientalia, Varanasi, India 2019, p no 420, chikitsa sthan, Chapter - 24, verse - 14, 16.
31. Prof. K. R. Srikantha Murthy, sharngadhara samhita: A treatise on Ayurveda, Chaukhamba orientalia, Varanasi, India reprint edition 2009, p no - 235, uttara khanda, chapter - 10, verse - 20.
32. Kaviraja Atrideva gupta, Ashtanga Hridayam, Vidyotini, Chaukhamba prakashana, Varanasi, India 2016, chikitsa sthana chapter 22 verse -12, p no 180.
33. Varsha S. Dhange, Pratiba Chougul, Importance of Oral hygiene in oro-dental disease: A Review Study, International Journal of Research and Review 6(12), 69-74,2019.
34. Pandit Kashinath Shashtri, Dr Gorkhnath Chaturvedi. Charaka samhita vidyotini vol - 1, Chaukhamba Bharti Acedamy, 2014, p no -792, sharira sthana, chapter-6, Verse -11.
35. Ibid; p no -791, sharira sthana, chapter-6, Verse -10.
36. <https://blog.cytoplan.co.uk/the-impact-of-neutrition-on-oral-health>
37. Wikipedia-<https://en.m.wikipedia.org/wiki/tooth-brushing>
38. <https://dentaquest.com/flossing-your-teeth>
39. www.oralhealthgroup.com
40. Kaviraja Dr Ambikadutt Shashtri, Sushruta Samhita, Ayurveda Tatva sandikpika, Vol -I, Chaukhamba Sanskrit sansthana, Varanasi, India, reprint-2015, p no -123, chikitsa sthana, chapter -22, verse -18
41. Ibid; p no -122, Chikitsa sthana, chapter -22, verse -11 -12.
42. Ibid; p no -123, Chikitsa sthana, chapter -22, verse -19 -21.

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