



Review Article

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IMPORTANCE OF AYURVEDIC DANT DHAWAN VIDHI IN ORAL HYGIENE AND ORO – DENTAL DISEASES IN COMPARISON WITH MODERN METHODS: REVIEW STUDY

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ABSTRACT

In Ayurveda, Dantdhawan vidhi is routine work in Dinacharya, including Dantdhawan, Jivhanirlekhan, Kawal, Gandush etc., to maintain oral hygiene. Similarly, modern methods include Tooth Brushing, Gargles etc., which help keep the mouth clean and free of disease. Ayurveda gives importance to a thorough Dant Dhawan vidhi in the early morning, while modern medicine provides a general guideline of brushing teeth twice a day after meals. Both methods give importance to cleaning teeth, interdental cleaning and gums hygiene. This article provides a brief knowledge of oral hygiene in Oro Dental disease in view of Ayurveda and Modern methods.

Keywords: Dantdhawan, Dant Pawan, Kawal, Gandush, Jivhanirlekhan.

INTRODUCTION

Oral diseases or poor oral hygiene can cause pain, bad odour, and discomfort.

WHO Definition of Oral Health: Oral health is a crucial indicator of overall health, well-being, and quality of life.¹ It encompasses various diseases and conditions, including dental caries, periodontal (gum) disease, tooth loss, oral cancer, oro-

dental trauma, noma and congenital disabilities such as cleft lip and palate.

Dantadhawan is a part of Dincharya in Charaka Samhita, and Ashtanga Hridaya mainly focuses on the preventive aspect.

Sushruta mentioned Dantdhawan in chikista sthana, which focused on the curative aspect.

Ayurvedic Dant Dhawan Vidhi and Modern methods

Ayurvedic Vidhi ²	Modern Method
Dant Pawan – Dattuna or chewing sticks.	Tooth Brushing – Brushing teeth with the help of a brush having bristles.
Jivha Nirlekhan – Cleaning tongue with the help of a wooden scale.	Tongue scrapers – Scraping tongue with Metal Scale (Copper/ Steel etc.)
Kawal – Kawal is a procedure of holding a comparatively small quantity of medicated liquid/oil in the mouth and making it move briskly inside and spit out quickly.	Gargling – Washing mouth and throat with a liquid/oil kept in motion by breathing through it with a gurgling sound.
Gandush – Gandush is a process of filling the entire mouth with a large quantity of Medicated liquid.	A similar method is not available

Dant Pawan: In dant pawan, we are chewing the stick, which is more challenging and releases juices suitable for the oral cavity.

According to

Acharya Charaka: Karanj, Kaner, Arjun, Malati, Nimb etc. are the different types of plant sticks used for Dant Pawan.³

Acharya Sushruta: Plants used for datum according to their rasa Madhur and Madhuk-Tikta,

- Nimba – Katu,
- Karanj – Kashaya
- Babool - Kashaya⁴

Acharya Vagbhata: Said to use Arka, Nyagrodh, Khadir, Karanj, Kukubhaadi for Dant Pawan.⁵



Dant Dhawan: It means cleaning the teeth with a small piece of a plant stick or a tree's medicinal property, taking the stick and shaping it like a toothbrush by crushing one end.

Jivha nirlekhan (tongue scrapping): Cleaning tongue with the help of scale (Patti) etc. Ideally, using gold, silver, copper and stainless steel for scrapping the tongue is recommended. Due to the tongue scrapping reflex, points of the tongue are stimulated, which removes halitosis and improves the sense of taste, stimulating the secretion of digestive enzymes.

Kawal: Kawal is a procedure of holding a comparatively small quantity of Medicated Liquid/ Medicated Oil in the mouth and making it move inside the mouth and spit out quickly.

Gandush (Oil Pulling): Oil pulling is an Ayurveda procedure that involves Medicated Liquid/ Medicated Oil in the mouth for oral health benefits. It is mentioned in the Charaka Samhita, called gandusha (oil pulling), and has been used as a traditional Indian remedy to prevent decay, bleeding gums, dryness of the throat, cracked lips and for strengthening teeth, gums and the jaw.

Brushing: Brushing teeth with the help of a brush having bristles.



Brushing teeth two times a day after every meal is recommended for the excellent health of teeth.

Cleaning between the teeth, i.e., interdental cleaning, is important as Brussels cannot reach between the teeth. Dental floss and interdental brushes are used to clean the teeth.⁶



Image: Different types of instruments used in tooth cleaning

Modern Drugs used in oral hygiene

Toothpaste generally contains water (20–40%), Abrasives (50%), including aluminium hydroxide, calcium hydrogen phosphates, calcium carbonate, silica and hydroxyapatite. Fluoride, mainly sodium fluoride, is the most popular and effective ingredient in toothpaste to prevent cavities.⁷

Content	Properties
Abrasives ⁷	Abrasives constitute 8-20% of typical toothpaste. These insoluble particles are designed to help remove plaque from the teeth. The removal of plaque inhibits the accumulation of tartar (calculus), helping minimise gum disease risk. Representative abrasives include particles of aluminium hydroxide Al(OH) ₃ , calcium carbonate (CaCO ₃), magnesium carbonate (MgCO ₃), sodium bicarbonate, various calcium hydrogen phosphates, various silica and zeolites, and hydroxyapatite (Ca ₅ (PO ₄) ₃ OH)
Fluoride ⁷	Fluoride in various forms is the most popular and effective active ingredient in toothpaste to prevent cavities. Fluoride is present in small amounts in plants, animals, and some natural water sources. The additional fluoride in toothpaste has beneficial effects on the formation of dental enamel and bones. Sodium fluoride (NaF) is the most common source of fluoride, but stannous fluoride (SnF ₂) and sodium monofluorophosphate (Na ₂ PO ₃ F) are also used. At similar fluoride concentrations, toothpaste containing stannous fluoride is more effective than toothpaste containing sodium fluoride in reducing the incidence of dental caries and dental erosion.
Surfactants ⁷	Many, although not all, toothpaste contain sodium lauryl sulphate (SLS) or related surfactants (detergents). SLS is also found in many other personal care products, such as shampoo, and is mainly a foaming agent, which enables uniform distribution of toothpaste, improving its cleansing power.
Triclosan ⁷	Triclosan, an antibacterial agent, is a common toothpaste ingredient in the United Kingdom. Triclosan or zinc chloride prevent gingivitis and, according to the American Dental Association, helps reduce tartar and bad breath.
Flavorants ⁷	Toothpaste comes in various colours and flavours intended to encourage product use. The three most common flavourings are peppermint, spearmint, and wintergreen. Toothpaste flavoured with peppermint-anise oil is popular in the Mediterranean region. These flavours are provided by the respective oils, e.g., peppermint oil.
Polyethylene glycol - PEG ⁷	PEG is a common ingredient in some the formulas of toothpaste; it is a hydrophilic polymer that acts as a dispersant in toothpaste.

Some of the Ayurvedic Drugs used in Dental Diseases and Oral hygiene

Name of the Drug & Botanical name	Properties	Pharmacological actions
Nimba (<i>Azadirachta indica</i>) ⁸	Kaphapittahara, Krimighna, deepana, Chardihara, Vishahra	Anti-fungal, anti-bacterial, anti-inflammatory.
Khadira (<i>Acacia catechu</i>) ⁹	Kaphapittahara, Dantya, deepana, Aruchihara, Krimihara, Dantarogahara	Antioxidant, Anti-inflammatory, Analgesic.
Arjuna (<i>Terminalia arjuna</i>) ¹⁰	Trishnahara, Sadyovranahara,	Anti-fungal, anti-tumour, anti-cancer.
Arka (<i>Calotropis Procera</i>) ¹¹	Vata hara, Vishaghna, Deepana, Shophahara, Vranahara, Krimihara, Kanduhara,	Anti-bacterial, Wound healing, anti-inflammatory, anti-cancerous.
Karanja (<i>Pongamia pinnata</i>) ¹²	Kapha-Vatahara, Krimighana, Kandughna	Anti-inflammatory, Antioxidant and Anti-ulcer.
Kshoudra (Honey)	Kaphavatahara, Ropaka, Vishahara.	Anti-bacterial, anti-microbial.

There are 15 types of Dantmulagat Rog, according to Acharya Sushruta, in which we can benefit from oral hygiene in the 12 types of diseases mentioned below.

Shitaad (Spongy gums or Bleeding gums): The bacteria in gums that can attack the gum tissue, which can cause permanent damage to the mouth (Oral Cavity).

Dantpuputak (Gingivitis, Gumboil, Alveolar or apical abscess): Gingivitis is a common gum disease that causes irritation, redness and swelling of your gingiva, the part of the gum around the base of your teeth.

Dantveshtak (Pyorrhoea alveolaris): A chronic periodontitis of the gums and teeth characterized by pus formation and loosening.

Shaushir (Apical abscess or Chronic Gingivitis): Apical abscess is a common form of dental abscess caused by infection of the tooth's root canal. It is usually localized intraoral.

Mahashaushir (Cancrum oris): Cancrum oris (noma) is caused by the spirochete *Borrelia vincenti* in association with anaerobic bacteria, commonly a member of the fusobacteria. The disease occurs in undernourished individuals with poor hygiene.

Paridar (Gangrenous Stomatitis): Gangrenous stomatitis is a lesion involving the orofacial structures primarily seen in areas with low socioeconomic standards and poor hygiene.

Dantvaidharbh (Allergic Gums): A sensitivity or allergy to certain things may cause itching gums. These include foods, seeds, medicine and pets.

Dantnadi (Sinuses of gums): Dental sinuses usually occur in the sulcus on the cheek side near the tip of the tooth. Extra-oral dental sinuses start from a tooth in the lower jaw and drain to the chin or under the chin or jawline (sub-mental or sub-mandibular).¹³

There are eight types of Dantgat Rog, according to Acharya Sushruta, in which we can have benefits of oral hygiene in below mentioned seven types of diseases

Dalan (Toothache/Odontina/Cracked tooth): Cracked tooth is incompletely cracked, but no part of the tooth has yet broken off. It is also described as greenstick.

Krumidant (Cariou tooth or dental caries): Cavities, also called tooth decay or caries, are caused by a combination of factors, including bacteria, sweet drinks and poor oral hygiene.

Dantharsha (Odontitis due to exposed nerve filament, Cariou tooth/ Attrition): Dental attrition is the loss of tooth structure/tissue caused by tooth-on-tooth contact. This is considered the normal ageing process.

Bhayanjanak (Cracked or fissured tooth): Cracked tooth is Characterised as the pieces that can be separated. The tooth cannot be intact, and the position of the crack will decide whether it can be saved or not.

Dantsharkara (Tartars): Tartar is a deposit on the teeth which causes discolouration. Foods can cause stains, such as blueberries and coffee. Many habits can cause tarter such as Tobacco, Guthka and Smoking.

Kapalika (Enamel separation): Enamel is the teeth' defence against the chemicals exposed to food and fluids. This is called enamel erosion. Enamel erosion can cause tooth stains and sensitivity. Tooth enamel is an irreversible change.

Shyavdant (Black tooth): As the tooth gets eaten, tooth decay sets in. Tooth decay is naturally black and gives the appearance of a black tooth. This also looks like rotten teeth and results from poor oral hygiene for an extended period.¹⁴

Maintaining oral hygiene can prevent and treat the Oro – Dental diseases. Prevention is better than cure, so maintaining oral hygiene is most important.

CONCLUSION

Oral hygiene is keeping the mouth clean and free of disease by regular brushing and cleaning between the teeth. Oral hygiene is to be maintained regularly to prevent dental disease and oral hygiene. Commonly tooth decay, cavities, dental caries and gum diseases are seen as a result of poor oral hygiene. There are numerous Ayurvedic drugs which can be used in the prevention as well as management of Oro-dental diseases and oral hygiene. Ayurvedic plants have antimicrobial, anti-inflammatory, analgesic, and antiulcer genic property can help well in oral hygiene and Oro-dental diseases.

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