



CONCEPT OF MUKHA SWASTHYA (ORAL HYGIENE) WITH AYURVEDIC PERSPECTIVE

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ABSTRACT

Background: *Mukha* is an *Anga* who is exposed to several risk factors on a regular basis, hence *Mukha Swasthya* (oral hygiene) is becoming more and more significant. Tobacco chewing, smoking, and other habits have increased the prevalence of oral cavity diseases. In *Ayurveda*, *Dantdhawana*, *Kavala*, *Gandusha*, and various other remedies are mentioned to maintain *Mukha Swasthya*. *Ayurvedic* classical texts prescribe *Dantadhawana* by *Datuna* (Chewing Sticks) in the morning and after every meal to prevent mouth ailments. *Kavala* comprises swishing a certain oil or herbal decoction in the mouth for a particular duration, whereas *Gandusha* involves retaining a larger quantity of liquid in the oral cavity for a longer period of time. Both treatments promote comprehensive cleansing by eliminating dirt, pollutants, and potentially hazardous germs from the mouth and throat.

Material and Method: This review paper has been taken from different *Ayurvedic* classical textbooks, Textbooks of *Swasthavritta*, and various modern and *Ayurvedic* research papers from PubMed, Google scholar, SCI etc.

Discussion: *Ayurveda* defines *Dantdhawana vidhi* as routine oral hygiene maintenance procedure in *Dinacharya*, including *Kavala*, *Gandusha* etc. Similar to this, modern practices like tooth brushing and gargling help to maintain oral hygiene to become healthy and free of diseases. These practices enhance dental health, reduce

plaque formation, prevent cavities, alleviate halitosis, and promote gum health. *Dantadhawana* with its antimicrobial, anti-inflammatory, and tissue-strengthening properties, may contribute to improving oral hygiene and gum health. On the other hand, in *Kavala* and *Gandusha*, the swishing action and the prolonged contact of the liquid with the oral tissues enhance the absorption of these beneficial compounds, aiding in the removal of pathogens and the restoration of oral balance.

Result: A vital sign of general health, happiness, and quality of life is good oral health. Dental caries, periodontal disease, tooth loss, oral cancer, orodental trauma, noma, and congenital impairments including cleft lip and palate are just a few of the illnesses and problems it covers. In *Charaka Samhita*, *Dantadhawana* is mentioned as the subset of *Dincharya*, whereas it was referenced by *Acharya Sushruta* in the section on cures (*Chikista Sthana*) and *Ashtanga Hridaya* primarily mentioned its preventive aspects. In various studies, it is found that *Dantadhawana* makes natural whitening of teeth, improves oral hygiene, Strengthen teeth and gum. Whereas *Kavala* and *Gandusha* help in reduction of harmful bacteria, makes breathe fresh, enhances oral health, nourish oral tissues.

Keywords: *Ayurveda*, *Dantadhawana*, *Gandusha*, *Kavala*, *Mukha Swasthya*, Oral hygiene

INTRODUCTION

The mouth is said to be a reflection of the general health of the human body. Billions of bacteria live in the oral cavity, and some of them contribute to the development or progression of systemic disorders such as cardiovascular diseases, diabetes mellitus, and so on.¹ Oral health and overall health are interrelated.² As a result, maintaining good oral health is crucial. Oral hygiene is the practice of keeping one's mouth and teeth clean in order to avoid dental disorders such as cavities, gingivitis, periodontal diseases, and bad breath.

W.H.O. estimates that around 3.5 billion individuals worldwide (almost 50% of the population) suffer from one or more forms of oral ailments. In fact, the global burden of oral health conditions exceeds the sum of the global burden of the next five most common non-communicable diseases by nearly a billion cases.³ Oral diseases, while generally preventable, are a significant health burden in many nations, affecting people throughout their lives, causing pain, discomfort, disfigurement, and even death. They are caused by a variety of modifiable risk factors, including sugar consumption, smoking, use of alcohol, and poor cleanliness, as well as their underlying social and commercial factors. Treatment for oral health issues is costly and is not frequently covered by Universal Health Coverage (UHC). Many low and middle-

income nations having lack of sufficient resources to prevent and treat oral health problems.⁴

Ayurveda has been considered to be the world's oldest medicinal system, having started in India thousands of years ago.⁵ Plants have a long history of being used to promote dental health and oral hygiene. Current research showed that herbal extracts are effective because of the interaction with specific chemical receptors within the body. Nowadays, there has been a sudden increase in the use of herbal extracts or plant products as an alternative approach to modern day medicines. For decades, traditional *Ayurvedic* practices such as *Dantadhawana* (tooth brushing), *Kavala* (Gargling) and *Gandusha* (Oil pulling) have been used as effective techniques of oral cleaning and hygiene. Improper *Dantadhawana*, non-practice of *Kavala* and *Gandusha* are mentioned as causes of oral maladies (*Mukha Roga*).⁶

DANTDHAWANA (Tooth Brushing):

A vital step in everyday practice is *Dantadhawana*. It is one of the most significant practices of *Dinacharya*. From an *Ayurvedic* perspective, as preventive it is most important. The *Ayurvedic Samhitas* like *Brihatrayi*, which includes *Charaka Samhita*, *Sushruta Samhita*, and *Ashtang Samgraha/Hridaya*, described *Dantadhawana* as a component of *Dinacharya*. While *Sushruta Samhita* mentions it in *Chikitsa*

Sthana, concentrates on its curative elements. In *Charak Samhita* and *Ashtang Hridaya*, *Dantadhawana* mentioned in *Sutra Sthana*, which largely focus on its preventive aspects. In modern pharmacological studies, many *Dantadhawana* drugs are mentioned with their importance in the modern period. The process for doing *Dantadhawana*, the timing, the appropriate twigs to utilize, and other details are covered in detail in the *Brihatrayi*.

Dantadhawana Dravya: One should brush in the morning and night after intake of food with twigs of *Arka*, *Vata*, *Khadira*, *Karanja* and *Arjuna*.⁷ According to *Ashtanga Samgraha*, *Asana*, *Karavira*, *Sarja*, *Arimeda*, *Apamarga*, *Malati*, *Jati* should be used as twig⁸ which are *Kashaya*, *Katu*, and *Tikta* in taste. Every day, a fresh twig should be used for cleaning teeth. It should be twelve *angula* in length (*dwadashangulyam*), thickness should be of little finger (*Kaninagra samsthalyay*), front part of twig

should be chewed properly (*Kshunagra*), straight (*Riju*), free of knots (*Granthi rahit*), grown on good soil/land (*subhumija*).^{8,9,10}

The selection of twigs for *Dantadhawana* should be done on the basis of *dosha*, season (*ritu*), *rasa* and *virya* after getting up. *Nimba* (*neem*) is best among bitter (*Tikta*) ones, *khadira* is the best among astringent (*Kasaya*) drugs *Madhuka* is the best among sweet (*Madhura*) drugs and *Karanja* is the best among the pungent (*Katu*) drugs.^{11,12} *Dantadhawana/ Dantashodhana churna* (powder) of *Triphala*, *Trikatu*, and *Trijataka* can be used in absence of twigs.

Dantadhawana Vidhi: One should brush teeth in vertical direction from bottom to top.¹³ Brushing should start with the lower row of teeth. Every morning, *Grishma* and *Sharad Ritu* are instructed to splash their eyes with cold water while keeping their mouths full of water.¹⁴

Table 1: Drugs, Ayurvedic properties & its Pharmacological actions¹⁵

Sl. No	Name of the Drug & Botanical name	Properties	Pharmacological actions
1	<i>Karanja (Pongamia pinnata)</i>	<i>Kandughna</i> <i>Kapha-Vatahara</i> , <i>Krimighana</i> ,	Anti-ulcer activity, Antioxidant and Anti-inflammatory ¹⁶
2.	<i>Karaveera (Nerium indicum)</i>	<i>Dusta vranahara</i> <i>Kapha-Vatahara</i> , <i>Kandughna</i> , <i>Krimighana</i>	Anti-bacterial, anti-fungal, radio therapy supplementation, anti-ulcer, anti-inflammatory, analgesic, anti-cancer, chemo and anti-viral, Anti-oxidant ¹⁷
3	<i>Arka (Calotropis gigantea)</i>	<i>Visharogahara</i> , <i>Vata hara</i> , <i>Vishaghna</i> , <i>Krimihara</i> , <i>Kanduhara</i> , <i>Deepana</i> , <i>Shophahara</i> , <i>Vranahara</i>	wound healing, Anti-bacterial, free radical scavenging, anti-cancerous, analgesic and anti-inflammatory ¹⁸
4	<i>Malati (Jasminum grandiflorum)</i>	<i>Vranahara</i> , <i>Dantarati</i> <i>Vishahara</i> , <i>Mukhapakahara</i>	Anti-bacterial, Anti-ulcer, antioxidant and anti-inflammatory, anti-microbial ¹⁹
5	<i>Arjuna (Terminalia arjuna)</i>	<i>Sadyovranahara</i> , <i>Trishnahara</i>	Anti-microbial, anti tumour, anti-fungal, expectorant, anti-cancer ²⁰
6	<i>Asana</i>	<i>Raktamandala</i> , <i>Galadoshaghna</i> ,	antiinflammatory, Antioxidant, anti-

	(<i>Pterocarpus marsupium</i>)	Kapha Pittaghna, Nashana	microbial, analgesic, anti proliferative, anti-fungal ²¹
7	Nygrodha (<i>Ficus benghalensis</i>)	Kaphapittahara, Sthambhana, Vranapaha Trishna	Ati ulcerogenic, anti-inflammatory Antioxidant, analgesic ²²
8	Khadira (<i>Acacia catechu</i>)	Krimihara, Kaphapittahara, Dantya, Deepana, Aruchihara, Dantarogahara Vranahara	Antioxidant, Anti-inflammatory, Analgesic, Anti-microbial, ²³
9	Nimba (<i>Azadirachta indica</i>)	Krimighna, deepana, Vranahara, Kaphapittahara, Chardihara, Vishahra	Anti inflammatory, Anti-fungal, Anti- bacterial, Anti-tumour ²⁴
10	Madhooka (<i>Glycyrrhiza glabra</i>)	Chardi, Trishnahara, Daha, Raktapitta, Tridoshaghna, Rasayana, Vrana Shothahara	Antioxidant, Anti-ulcer ²⁵
11	Kshoudra (Honey)	Krimi, Ropaka, Vishahara, Kaphavatahara, Chardi, Trit	promotes oral wellness, gingivitis, Anti-bacterial, anti-microbial, anti-oxidant ^{26,27,28}
12	Maricha (<i>Piper nigrum</i>) Pippali (<i>Piper longum</i>) Trikatu- Shunti (<i>Zingiber officinalis</i>)	Pachana, Deepana	Anti fungal, Anti inflammatory ²⁹ , Analgesic, Anti- tumour, Anti-microbial, Appetizer and digester ³⁰
13	Trisugandha- Twak (<i>Cinnamomum zeylanicum</i>) Patra (<i>Cinnamomum tamala</i>) Ela (<i>Elettaria cardamomum</i>)		Anti-microbial, Anti-cancerous, odorant, Anti emetic, Analgesic, Anti- inflammatory, Anti Oxidant ³¹
14	Taila (<i>Sesamum indicum</i>)	Vataroga hara, Agnimandya	Anti-bacterial, Anti-viral, Analgesic, Anti-cancerous, Antioxidant, strengthens nerves ³²
15	Saindhava (Rock salt)	Tridoshaghna, Deepana, Rochaka	anti helmenthic, Antioxidant (due to trace minerals), Antacid, Carminative, Digestive Stimulant, Anti-inflammatory (mild action) ³³

The responsible factors for various actions of *Dantadhawana* drugs are *Rasa*, *Virya*, *Vipaka*, *Prabhav* and all *Acharyas* mainly focus on *Rasa*. In *Ayurvedic Granthas* i.e. *Charak Samhita* mentioned *Katu*, *Tikta*, *Kashaya rasa* for the *Dantadhawana* purpose while in *Sushruta Samhita*, *Madhur*, *Katu*, *Tikta* and *Kashaya* are included. According to *Vagbhatta*, (i.e.

in *Ashtang Hridaya*) *Kashaya*, *Katu* and *Tikta rasat-maka dravyas* are used for the same.

Benefits of *Dantdhawana*: It removes dental coating and foul scent and restores freshness. It results in alleviation of *Kapha*, oral clarity, and a desire for food.³⁴

Contra-Indications of *Dantdhawana*: Brushing teeth is not advised for anyone who has suffering from indigestion (*ajeerna*), vomiting (*chardi*), diffi-

culty breathing (*swas*), fever (*jwar*), cough (*kasa*), facial paralysis (*ardita*), mouth ulceration (*ashyapaka*), extreme thirst (*trishna*), or disorders of the eye (*chakshu*), head (*siro*), or ear (*karna*).³⁵ According to *Kshemkutuhal*, in such conditions, one should practice twelve times *Jala Gandusha* for freshness of mouth (*Mukh Shuddhi*).

KAVALA (GARGLING):

Kavala is a method that involves holding a small amount of liquid in the mouth, making it move quickly inside, then spitting it out immediately. For *Kavala*, decoction of *Khadira* (*Acacia catechu L.*) or *Kshirivrikshas* such as *Nyagrodha* (*Ficus bengalensis L.*), *Udumbara* (*Ficus glomerulata Roxb.*), and others may be applied daily. According to *Acharya Sharn-gadhara* medicated pastes are used for the purpose of *Kavala*.³⁶ It eliminates appetite loss, unpleasant taste, filth, and excessive salivation from the mouth.³⁷ For years, it has been widely used as a traditional Indian folk treatment to prevent tooth decay, halitosis, bleeding gums, cracked lips, and to strengthen teeth and gums. Dr. F. Karach reintroduced the concept of *Kavala* (Gargling) in Russia in 1990.³⁸

Classification of Kavala: *Acharya Susruta* has mentioned four types of *Kavala*, such as:³⁹

1. **Sneihika** - for *Vataja Vyadhi* of the mouth, or illnesses characterized by dryness and roughness in the mouth - treated by *Snigdha* (unctuous) and *Ushna* (hot) *dravya*.
2. **Prasadi** - for *Pittaja Vyadhi* of the mouth e.g. stomatitis or ulcers in the mouth and gums - treated by *Madhura* (sweet) and *Sheetal* (cool) *dravya*.
3. **Shodhana**- for *Kaphaja Vyadhi* of the mouth characterized by excessive salivation and stickiness of the mouth- treated by *Katu* (pungent), *Amla* (sour), *Lavana* (salty), *Ruksha* (dry) and *Ushna* (hot) *dravya*.
4. **Ropana**- for *Vrana* (ulceration of the mouth) – treated by *Kashaya* (astringent), *Tikta* (bitter) and *Madhura* (sweet) *dravya*.

Method and Duration of Kavala: The person should sit in an area free of breeze but in bright sunlight,

with his/her shoulders and neck massaged (*Mardana*) and fomented (*Svedana*) and his face slightly lifted. *Kavala Vidhi* is the practice of moving liquids with half full of mouth that balances *Vata*, *Pitta*, or *Kapha* and one should continue gargling with a focused mind and lifted body. Once the cheeks are covered with the *dosha* (*Kapha*) and discharge starts to come from the nose and eyes, then it should be discarded and replaced with a new one. The liquid should be kept in the mouth until exudation emerges in the mouth and the cheeks exhibit symptoms of *Kapha* buildup.⁴⁰ After spitting out the contents, one should rinse their mouth with *Sukhoshna* (lukewarm) *Jala* (water) and then do *Mridu Svedana* for their neck and shoulders.⁴¹

Benefits of Kavala: According to *Acharya Charaka*, the practice of *Kavala* enhances mandible strength (*hanubala*), voice resonance (*swarabala*), face nourishment (*vadanapachaya*), taste sensation (*rasa gyan*), and delivers wonderful taste (*ruchiruttama*). It reduces throat dryness (*kanthasosh*), lip cracking (*oasth sphutan*), tooth decay (*danta kshaya*), and strengthens teeth (*dridha dantamula*). After consuming sour (*amla*) or hard food, the person does not experience pain (*shool*) or tingling sensation of teeth (*sheeta danta*).⁴²

GANDUSHA (Oil Pulling):

Acharya Susruta mentioned that Mouth is completely filled with *Gandusha dravya* and kept without movement in Oil pulling or *Gandusha*.⁴³ According to *Acharya Sharangadhara*, liquids are used in *Gandusha karma*.⁴⁴ In *Gandusha*, the mouth is entirely filled with a medicinal fluid that prevents it from moving around inside the mouth. It is then held in place until *netra* and *nasasrava* (eye and nasal secretions) are present, at which point it is spit out. Medicines like medicinal oil or ghee, milk, honey, and lukewarm water are among those mentioned for this purpose. Several other medications are also addressed while discussing the management of oral illnesses.⁴⁵

Table -2: Types of Gandusha:

According to Acharya Vagabhatta	According to Acharya Susruta ⁴⁶
1. Snigdha- Vata	Snigdha- Vata
2. Samana – Pitta	Prasadi – Pitta
3. Ropana – Vrana	Sodhi – Kapha
4. Shodhana – Kapha	Ropana – Vrana

Method and Duration of Gandusha: Amount of *Gandusha dravya* is one *kola* or half *karsha*.⁴⁷ *Gandusha* should be practiced attentively, sitting erect, liquid should be retained in the mouth until the mouth is completely filled or before the discharge from nasal passage and eyes; after that the liquid should be spit out and another quantity of liquid taken it.⁴⁸

Different Dravya (Liquids) used for Gandusha:⁴⁹

1. **Snigdha** - to alleviate *Vata dosha*, *snigdha* (unctuous) substances having *madhura* (sweet), *amla* (sour) & *lavana* (salt) taste are used.
2. **Prasadi/Samana** - to pacify *Pitta dosha*, *madhura* (sweet), *tikta* (bitter) tastes and *sheeta* (cold) quality drugs are used.
3. **Sodhana**- to expel *Kapha dosha*, drugs having *ushna* (hot) and *ruksha* (dry) quality are used.
4. **Ropana**- to heal the wounds, *tikta* (bitter), *madhura* (sweet) & *kasaya* (astringent) tastes having healing property are used.

For *Gandusha* unctuous substances like *Sneha*, milk, honey, water, *sukta*, alcohol, meat soup, win, rice gruel and decoctions are used in hot conditions.⁵⁰ Everyday *Gandusha* is ideally done with oil or meat soup.⁵¹

Benefits of Gandusha: According to *Acharya Charaka*, practice of *Kavala* enhances mandible strength (*hanubala*), voice resonance (*swarabala*), face nourishment (*vadanapachaya*), taste sensation (*rasa gyan*), and delivers wonderful taste (*ruchirutama*). It reduces dryness of throat (*kanthasosh*), lip cracking (*oasth sphutan*), tooth decay (*danta kshaya*), and strengthens teeth (*dredha dantamula*). After consuming sour (*amla*) or hard food, the person does not experience pain (*shool*) or tingling (*sheeta danta*).⁵² *Gandusha* stimulates salivary enzymes that draw toxins from the circulation and eliminate them from the body through the tongue, including chemical, bacteri-

al, and environmental toxins.^{53,54,55,56} *Gandusha*, hence cleanses and detoxifies the entire human body.⁵⁷ It is countered that because the oral mucosa is not a semipermeable membrane, toxins of body cannot flow through it.

Features of Samyak (Proper) Lakshana of Kavala and Gandusha:

The alleviation of disease, proper nourishment (*push-ti*), clarity of mouth (*vaktra laghavam*), lightness of sense organs (*indriyanam prasada*) & clarity of sense organs are the features of proper *Kavala* & *Gandusha*.⁵⁸

Features of Atiyoga (Excess) Lakshana of Kavala and Gandusha:

Excess of *Gandusha/Kavala* leads to mouth ulceration/stomatitis (*mukhapaka*), dryness (*sosha*), thirst (*trishna*), anorexia (*aruchi*), exhaustion (*klama*).⁵⁹

Features of Hina (Improper) Lakshana of Kavala and Gandusha:

Improper *Gandusha/Kavala* leads to diseases, excess of *Kapha* (*kapha utklesha*) in the mouth and improper perception of taste (*avara rasagyana*).⁶⁰

Ayogya (Contraindication) of Kavala and Gandusha:

It should be undertaken by the person affected with *Visha*, *Murcha*, *Mada*, *Kshaya roga*, *Raktapitta*, *Netra roga*, *Ksheena Mala*, *Ruksha Mala* this people should no practice *Gandusha* and *Kavala*.⁶¹

Mode of Action of Kavala and Gandusha: *Sukoshna* (Lukewarm) *Kavala* and *Gandusha dravyas* are commonly used. This promotes the circulation of the oral cavity and the rapid acceptability of medication potency. Every cell membrane in the human body is made up of a lipid bi-layer, and everything can be observed quickly when combined with oil or fat. Because mucous membrane of the oral cavity has the potential to absorb lipid-soluble medications, the potency or active principle of *dravya* found in *Gandusha/Kavala dravya* is observed.

Gargling process of *Kavala* has a soothing effect on the oral mucosa and even strengthens the muscles of the cheek, face, and jaw bones.⁶² Oil pulling stimulates salivary enzymes that draw toxins from the circulation and eliminate them from the body through the tongue, including chemical, bacterial, and environmental toxins.^{63,64,65,66} Hence, it cleanses and detoxifies the entire human body.⁶⁷ It is also countered that because the oral mucosa is not a semipermeable membrane, toxins of body cannot flow through it. The act of *Gandusha* and *Kavala* also provides proper exercise to the muscles of the cheeks, tongue, and soft palate, enhancing their motor activities. Its broad impacts include strengthening of mouth anatomically and physiologically.⁶⁸

DISCUSSION

Oral hygiene is an essential component of individual's health that significantly affects quality of life.⁶⁹ Practicing good oral hygiene will help avoid dental issues, most often dental cavities, gingivitis, periodontal disorders, and poor breath.⁷⁰ In today's fast paced global economy and jet life, it is critical to provide the best possible level of performance in our jobs. To do so, we need a healthy body in all physical, mental, social, and spiritual aspects.

Ayurveda has been practiced as an alternative medical system throughout the world. *Charak Samhita* and *Sushruta Samhita* are its earliest canonical texts of traditional approach to health and illness prevention emphasizes a lifestyle-based approach. We also receive references on disorders that impact the entire oral cavity, as well as their treatment in *Ayurveda*. *Swasthavritta* emphasizes this component of *Ayurveda* and establishes the path for a long and healthy life. As a result, several concepts have been defined to achieve this goal, and *Dinacharya* (daily regimen) is one of them.

Oral hygiene practices in *Ayurveda*, such as *Dantadhawana* (teeth brushing), *Kavala* (gargling), and *Gandusha* (oil pulling) are described as regular activities under the title of *Dinacharya* (daily regimen). They help to maintain oral health, increase salivation, bring freshness to the mouth, improve digestion, pre-

vent halitosis, strengthen oral muscles, and improve circulation. Improper *Dantadhawana*, non-practice of *Gandusha*, and *Kavala* are cited as causes of oral illnesses (*Mukha Roga*). *Kavala* and *Gandusha* are supposed to promote oral hygiene and prevent numerous oral cavity ailments.

Recent years, there has been a resurgence of interest in traditional practices like *Dantdhawana*, *Kaval* and *Gandusha* for oral hygiene. Today, people are increasingly looking for natural, alternative and commercial oral care products and exploring the potential benefits of these ancient practices. Here's a discussion on *Dantdhawana*, *Kavala* and *Gandusha* in the context of oral hygiene in present days-

- They are Natural approaches for oral care.
- They reduce chemical exposure of some commercial oral care products often contain ingredients like fluoride, artificial sweeteners, and preservatives which are harmful for the oral cavity.
- *Dantdhawana*, *Kavala* and *Gandusha* can help balance the oral microbiome by reducing harmful bacteria and promoting a healthy environment in the mouth.
- Healthy gums are crucial for overall oral health, and *Dantadhawana*, *Kavala* and *Gandusha* can contribute to both oral and gum health.

According to research, chewing sticks, which are mentioned in ancient *Ayurvedic* literatures, provide therapeutic and anti-cariogenic properties. According to Saimbi et al. (1994),⁷¹ neem extract demonstrated much superior antiplaque efficiency when compared to commercial toothpastes and *Ayurvedic* tooth powder. Venugopal and others had found that the children with 1-4-year-old were less affected with dental caries that used neem datun.⁷² According to their study, Neem contains the fluoride, resins, alkaloids magnesium, chloride, sulfur, tannins, silica, oils, flavonoids, sterols, saponins and calcium.⁷³ Several studies that highlight the value of oil pulling therapy in preserving dental health have been mentioned in the literatures. Following a 45-day oil pulling regimen using sunflower oil, Amith et al. (2007)⁷⁴ found that the plaque scores were significantly decreased. According to Sharath et al. (2009), Oil pulling therapy was

useful in preventing plaque-induced gingivitis both in terms of microbiological analysis and clinical evaluation.⁷⁵ A Study has done by AG Ravishanker et al. and it has been found that Tankan Bhasma Kavala was significant relief in chronic tonsillitis. A study on Panchvalkala Kwatha and Yavaksharadi vati (Deepak Ahuja; 2014); revealed that 46.51% enlarged tonsils were relieved and 90.38 % congestion over tonsils was relieved.

CONCLUSION

Oral hygiene is not properly maintained in modern life due to a lack of time and negligence. Many therapies are prescribed in modern medicine to manage oral hygiene problems properly. However, these techniques are highly expensive and cause significant difficulty for the patients. In summary, *Dantdhawana*, *Kavala* and *Gandusha* are traditional practices with potential benefits for oral hygiene. However, they have been used for a long time but scientific evidence that supports their effectiveness is limited. It's always a good idea to consult with a dental professional for personalized advice on maintaining oral hygiene and to ensure these practices are integrated appropriately into our oral care routine. Therefore, it is important for developing a simple, cost-effective and highly fruitful *Ayurvedic* medical treatment like *Dantadhawana*, *Kavala* and *Gandusha* to maintain oral health appropriately.

REFERENCES

1. Najjar T, Bacterial mouth infections, Medscape, retrieved from: <http://emedicine.medscape.com/article/1081424-overview>, Available from Internet, Last Accessed on 01.02.16.
2. Stanski R, Palmer CA, Oral health and nutrition as gatekeepers to overall health: we are all in this together, *Eur J Gen Dent*, 2015;4: 99e105.
3. Jain, N., Dutt, U., Radenkov, I. and Jain, S. (2023), WHO's global oral health status report 2022: Actions, discussion and implementation, *Oral Dis.* <https://doi.org/10.1111/odi.14516> <https://www.who.int/news-room/factsheets/detail/oral-health>
4. AMAI, K. "Critical Analysis of Role of Kavala and Gandusha in the Management of Halitosis", *Journal of Ayurveda and Holistic Medicine (JAHM)*, Vol. 4, No. 2, Apr. 2021, <http://jahm.co.in/index.php/jahm/article/view/303>.
5. Dr. Brahmanand Tripathi, Nirmala Hindi Vyakhya, Chaukhamba Sanskrit pratishthan, reprint edition 2017, Astanga Hridayam Sutra Sthana 21/2, page 1022
6. Dr. Brahmanand Tripathi, Nirmala Hindi Vyakhya, Chaukhamba Sanskrit pratishthan, reprint edition 2017, Astanga Hridayam Sutra Sthana 2/2-3
7. Shivprasad Sharma (Edited by) Commentary: Shashilekha by Indu on Ashtang Sangraha Samhita, Verse no. 4 Varanasi; Chaukhamba publishers; 2019. Ashtang Sangraha, Sutra Sthana 3/13
8. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthaan, Susruta Samhita, Chikitsa Sthana 24/5
9. Dr. Brahmanand Tripathi, Nirmala Hindi Vyakhya, Chaukhamba Sanskrit Samsthana, reprint edition 2017, Astanga Hridayam Sutra Sthana 2/3
10. Dssr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthana, Susruta Samhita, Chikitsa Sthana 24/5
11. Shribhavamishra, Edited by Padmashree Pro. Krushnachandra Chuneekar, Reprint Edition, Chaukhambha Bharati Academy, 2015; 121. Bhavprakash Nighantu, 5/17
12. Prof. K. R. Srikanta Murty, Chaukhamba Orientalia, Varanasi, Edition 2005, Ashtang Samgraha, Sutra Sthana 3/22
13. Prof. K. R. Srikanta Murty, Chaukhamba Orientalia, Varanasi, Edition 2005, Ashtang Samgraha, Sutra Sthana 3/22
14. Sadik, Mydeen & Upasani, Amit & Vaidya, Arun. (2017). Brief Reviews on Dantadhawana Dravya's According to Brihatrayi
15. V.V. Chopade, A.N. Tankar1, V.V. Pande1, A.R. Tekade1, N.M., Gowekar1, S.R. Bhandari1, S.N. Khandake, Pongamia pinnata: Phytochemical constituents, Traditional uses and Pharmacological Properties: A review, *International Journal of Green Pharmacy*
16. Pharmacological aspects of Nerium indicum Mill: A comprehensive review, jul-dec-2014; 8(16): PMC4127823
17. S. Gajalakshmi, M. Bhuvaneshwari, S. Mythili and A. Sathivelu, Pharmacological Activities of Calotropis gigantea: A Perspective *Journal of Pharma Research & Reviews*, 2012; 2(2): 29-33
18. Newsletter Sandeep and Paarakh586, Pharmacologyonline, Jasminum grandiflorum Linn (Chameli): Ethnobotany, Phytochemistry and Pharmacology – A review 2009; 2: 586-595.
19. Kamal Rai Aneja¹; Chetan Sharma^{II}; Radhika Joshi, *Brazilian Journal of Otorhinolaryngology*, 78: 1. São Paulo Jan./Feb. 2012, <http://dx.doi.org/10.1590/S1808-86942012000100011>

20. Phytochemistry and pharmacological activity of *Pterocarpus marsupium*- Review article, international research journal of pharmacy, <http://irjponline.com>.
21. N. Sirisha, M. Sreenivasulu, K. Sangeeta, C. Madhusudhana Chetty, Antioxidant Properties of *Ficus* Species – A Review, International Journal of Pharm Tech Research, CODEN (USA): IJPRIF ISSN: 0974-4304, Oct-Dec 2010; 2(4): 2174-2182.
22. Antioxidant, Anti-inflammatory, and Chemoprotective Properties of *Acacia catechu*, Heartwood Extracts Sidney J. Stohs^{1,2*} and Debasis Bagchi, PHYTO-THERAPY RESEARCH Phytoter. Res., 2015; 29: 818–824.
23. Antioxidant, Anti-inflammatory, and Chemoprotective Properties of *Acacia catechu*, Heartwood Extracts Sidney J. Stohs^{1,2*} and Debasis Bagchi, PHYTO-THERAPY RESEARCH Phytoter. Res., 2015; 29: 818–824.
24. Shashikant M Prajapati, Bhupesh R Patel, Phytopharmacological perspective of *yashtimadhu* (*Glycyrrhiza Glabra* LINN.) – A review, International Journal of Pharmaceutical & Biological Archives, 2013; 4(5): 833–841.
25. Engeseth NH, Gheldof N, Wang X, Nickelsen JD, Husmillo G, Wu CD. Antioxidant and Antimicrobial Activity of Honeys Against Oral Pathogens Journal of Dental Research, 2002; 80: 349. abstract- Paper presented at the International Association for Dental Research.
26. English HK, Pack AR, Molan PC. The effects of manuka honey on plaque and gingivitis: a pilot study. Journal of the International Academy of Periodontology, Apr 2004; 6(2): 63-7.
27. Molan PC, the potential of honey to promote oral wellness. General Dentistry, Nov-Dec 31, 2001; 49(6): 584-9. Indian Journal of Agriculture and Allied Sciences, ISSN 2395-1109, 2015; 1(4).
28. Phytochemistry and pharmacology of *Trikatu*, Vineet Sharma, Kritika Hem, Narendra
29. Kumar Singh, Dev Nath Singh Gautam. Journal of Pharmaceutical and Scientific Innovation, Clinical evaluation of *Trikatu* as Stimulant (*Agnideepan*), Singh Akhilesh Kumar Int. J. Med. Arom. Plants, ISSN 2249–4340, June 2011; 1(1): 1-4. *Cinnamomum tamala*:
30. A valuable tree from Himalayas; International Journal of Drug Formulation and Research, Therapeutic uses of *Elettaria cardomum*; Efficacy and safety of true (*cinnamum zeylanicum*) as a pharmaceutical agent in diabetes: as a systematic review and meta-Analysis, Nov 14-2012
32. Sesame oil (*Til Taila*) Medicinal Uses & Health Benefits – www.bimbima.com.
33. Rock Salt (*Sendha Namak* or *Halite*) Benefits & Uses - Ayur Times and Rock Salt Benefits, Ayurveda Usage, Side Effects, www.easyayurveda.com
34. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthaan, *Susruta Samhita*, *Chikitsa Sthana* 24/9
35. Dr. Brahmanand Tripathi, Nirmala Hindi Vyakhya, Chauhamba Sanskrit pratishthan, reprint edition 2017, Astanga Hridayam, *Sutra Sthana* 2/4
36. Sharangadhara, Choukhambha Surbharti Prakashan, Varanasi, Reprint 2013, *Sharangadhara Samhita*, *Ut-tara Khanda* 10/4
37. <http://ccras.nic.in/content/kavala-gargling-gandusha-holding-fluid-inside-mouth-oil-pulling>
38. Hebbar A, Keluskar V, Shetti A. Oil pulling-unraveling the path to mysticure. J Int Oral Health 2010; 2:11-4.
39. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthaan, *Susruta Samhita*, *Chikitsa Sthana* 40/58
40. Jadavaji T, Narayana R. *Sushruta Samhita*, *Chikitsa* 40/63, Chauhambha Surbharati Prakashana Varanasi; 2008
41. Ashtanga Hrudayam of Srimadvagbhatta, *Sutra Sthana* 22/10-11 “Nirmala” Hindi commentary edited by Dr Brahmanand Tripathi, Chauhambha Sanskrit Pratishthan, Delhi, 2015.
42. Agnivesha, *Charaka Samhita*, Ayurveda Deepika Commentary of Shri Chakrapanidatta, edited by Vaidya Jadavaji Trikamji Acharya, Chauhamba Orientalia, Varanasi:2015, *Charaka Samhita*, *Sutra Sthana*, 5/78-80.
43. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthaan, *Susruta Samhita*, *Chikitsa Sthana* 40/62
44. Sharangadhara, Chauhambha Surbharti Prakashan, Varanasi, Reprint 2013, *Sharangadhara Samhita*, *Ut-tara Khanda* 10/4
45. Vaidya Yadavji Trikamji (editor). *Sushruta Samhita* of Sushruta, *Chikitsasthana*, chapter 40, verse no 62, 65, 66. Varanasi; Chauhamba Surbharati Prakashan; 2014;558.
46. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthaan, *Susruta Samhita*, *Chikitsa Sthana* 40/58
47. Sharangadhara, Chauhambha Surbharti Prakashan, Varanasi, Reprint 2013, *Sharangadhara Samhita*, *Ut-tara Khanda* 10/6
48. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthaan, *Susruta Samhita*, *Chikitsa Sthana* 40/63
49. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthaan, *Susruta Samhita*, *Chikitsa Sthana* 40/58
50. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthaan, *Susruta Samhita*, *Chikitsa Sthana* 40/64

51. Dr. Brahmanand Tripathi, Nirmala Hindi Vyakhya, Chaukhamba Sanskrit pratishthan, reprint edition 2017, Astanga Hridayam, Sutra Sthana 22/6
52. Vaidya Jadavaji Trikamji Acharya, Ayurveda Deepika Commentary of Shri Chakrapanidatta, edited by Chaukhamba Orientalia, Varanasi: 2015, Charaka Samhita, Sutra Sthana, 5/78-80.
53. Ballal V. Oil therapy. Br Dent J. 2009; 207:193.
54. Kensche A, Reich M, Kümmerer K, Hannig M, Hannig C. Lipids in preventive dentistry. Clin Oral Investig. 2013;17:669e685.
55. oilpulling.com. Oil-pulling-science. Retrieved from: <http://www.oilpulling.com/oilpullingscience.htm> Available from Internet. Last Accessed on 27.02.16.
56. The progressive parent. Oil pulling natural detox for health. Retrieved from: <http://theprogressiveparent.org/tag/oil-pulling-2/> Available from Internet. Last Accessed on 27.02.16.
57. Kensche A, Reich M, Kümmerer K, Hannig M, Hannig C. Lipids in preventive dentistry. Clin Oral Investig. 2013;17:669e685.
58. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthana, Susruta Samhita, Chikitsa Sthana 40/65
59. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthana, Susruta Samhita, Chikitsa Sthana 40/66
60. Dr. Ambikadatta Shastri, Ayurveda Sandeepika Hindi Vyakhya, Volume 1 by Chukhamba Sanskrit Sansthana, Susruta Samhita, Chikitsa Sthana 40/66
61. Shetty M, Yograthakara. Purvardha, Abhavavarga/38, Edited and translated 1 st ed. Chowkhambha Sanskrit Series, Varanasi; 2005 Y.R.31
62. Swasthavritta Sudha by Dr. Kashinath Samgandi, Published by Ayurveda Sanskrit Hindi Pusak Bhandar, Haipur, First Edition 2014. ISBN: 978-93-84276-01-0.
63. Ballal V. Oil therapy. Br Dent J. 2009; 207:193.
64. Kensche A, Reich M, Kümmerer K, Hannig M, Hannig C. Lipids in preventive dentistry. Clin Oral Investig. 2013;17:669e685.
65. oilpulling.com. Oil-pulling-science. Retrieved from: <http://www.oilpulling.com/oilpullingscience.htm> Available from Internet. Last Accessed on 27.02.16.
66. The progressive parent. Oil pulling natural detox for health. Retrieved from: <http://theprogressiveparent.org/tag/oil-pulling-2/> Available from Internet. Last Accessed on 27.02.16.
67. Kensche A, Reich M, Kümmerer K, Hannig M, Hannig C. Lipids in preventive dentistry. Clin Oral Investig. 2013;17:669e685.
68. Shukla, Rakesh & Khuje, Sanjeev. (2019). Concept of Mukha swasthya (oral hygiene) with special reference to Kaval. 3. 1644-1649.
69. Al-Otaibi M, Al-Harthy M, Soder B, Gustafsson A, Angmar-Mansson B. Comparative effect of chewing sticks and toothbrushing on plaque removal and gingival health. Oral Health Prev Dent 2003; 4:301-7.
70. Shirley T, Naveen K, Balkrishna A. Use of Ayurveda in promoting dental health and preventing dental caries. Indian J Dent Res 2009; 20:246.
71. 16 Sambi CS. The efficacy of neem extract reported in Jeevaniya health care magazine 1994. Available from: <http://www.healthmantra.com/hctrust/ast6s.html>. [Last accessed on 2011 Nov 27].
72. Venugopal T, Kulkarni VS, Nerurker RA, Damle SG, Patnekar PN. Epidemiological study of dental caries. Indian J Pediatr 1998;65: 883-9.
73. Venugopal T, Kulkarni VS, Nerurker RA, Damle SG, Patnekar PN. Epidemiological study of dental caries. Indian J Pediatr 1998;65: 883-9
74. Amith HV, Ankola AV, Nagesh L. Effect of oil pulling on plaque and gingivitis. J Oral Health Comm Dent 2007; 1:12-8.
75. Sharath A, Pamela E, Raghunathan C. Effect of oil pulling on plaque induced gingivitis: A randomized, controlled triple blind study. Ind J Dent Res 2009; 20:47-51.

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