

**SIGNIFICANCE OF HERBAL STEM CHEWING (DANT PAWAN) IN ORAL HEALTH:
AN AYURVEDIC REVIEW**Advait Sharma¹, Alok Kumar Asthana²

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**ABSTRACT**

Ayurveda is the science of longevity and health and is the oldest science of health and medicine, it has much potential to lead medical science. It has two basic aims. One is to maintain the health of a healthy person and the second one is to cure the diseased one. In the first aim comes the *Dincharya* (daily routine)- the daily routine. In that *dincharya* come *Dant Pawan*, i.e. cleaning and exercising the oral cavity. Now day oral cavity problems are very common, and everyone needs to find a good dentist at some point. Oral cavities, receding gums, bleeding gums, sensitivity are very common and almost every person is suffering from it. A survey says it is more than 2.3 billion people suffering from just tooth decay. In such a serious situation where after applying all modern solutions using every possible good toothpaste and taking every prescribed supplement, still feels unsatisfied for dental or oral health and need to adjust in many ways of life. It is needed now to return to the ancient science of health and give it a chance too. So, the objective is to show the significance of *Dant Pawan* an ancient way of cleansing the oral cavity in establishing good oral health. All of the data is collected from *Ayurveda* literature and research articles regarding oral health. All of the data is reviewed and concluded that how *Dant Pawan* kriya is more beneficial for oral health than the toothpaste and brush.

Keywords: Dosh, *Dant Pawan*, oral muscular strength, fluoride, *dincharya*

INTRODUCTION

The oral cavity is one of the primary and most important cavities, as far as food is concerned. Because if we see clearly, we can say that it is the starting part of the stomach only, the gate for the stomach and passage to the stomach. And also, we know that it is very useful in digesting or breaking down the food. It is the most initial digestion process, the first step of digestion. Any disorder in the oral cavity from sensitivity to swelling, from tooth decay to fluorosis, is going to affect digestion. And digestion is being the most crucial part of human body processes as it is the initial of all. Proper digestion leads to proper nourishment of the body with macro and micronutrients. The oral cavity being the initial stage of digestion is very important to work efficiently, to digest the gross food by proper chewing and mixing it with saliva. Unhealthy oral cavity having lack of proper salivary content and chewing capacity of teeth could be due to disturbed lining of the oral cavity, toothache, sensitivity, receding gums etc. all such conditions are going to hamper its normal functioning somehow.

Ayurveda text gives you the insight to understand the fact and solve the problem from the root instead of just solving it for the short term and that is why it is more right to say that *Ayurveda* is a way of living. One could not just stop practising these principles, these principles are for a lifetime and to live on them is to live for health and with health.

Acharyas of Bhrithray - *Charak*, *Sushruta* and *Vagbhat* have explained the procedure, and different plant stems for datum, along with them they have also explained the benefits of it.

As the oral cavity covers digestion, speaking, thirst, cosmetics one should be very much dedicated to protecting or maintaining their oral health. Awareness needed to be spread around the globe, to maintain how to maintain oral hygiene and oral strength.

This article is going to deal mainly with the significance of plant stick chewing i.e *Dant Pawan Kriya* in strengthening the oral cavity and maintaining oral hygiene.

Aim: To present the conceptual benefits of *Dant Pawan Kriya* in maintaining oral health.

Objectives

- To study the *Ayurvedic* literature of *Dant Pawan Kriya*.
- To collect the scientific evidence in favour of *Dant Pawan Kriya*.

MATERIALS AND METHODS

This is a conceptual type of study. All sorts of references have been collected and compiled from various available *Ayurvedic* texts like *Charak Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, with available commentaries. Various scientific papers, research articles are also searched from various websites.

Nirukti (explanation) of Dant Pawan kriya

When a stem of a favourable plant, preferably astringent, spicy or bitter, is crushed with teeth and rubbed over teeth, securing the gums then it is known as dant pawan.¹ It is also known as Dant Pawan kriya. Since ancient times in Indian culture, it is followed to chew plant stems rub them well over teeth and explore the whole oral cavity with its juice, providing the removal of dirt, anti-microbial activity and strengthening of oral muscles.

Different plants used for Dant Pawan kriya

According to Acharya Charak- *Karanj, Kaner, Arjun, Malati, Asan*²

According to Acharya Sushrut-³

Table 1: Plants used for datum according to their rasa

<i>Madhur (sweet)</i>	<i>Madhuk</i>
<i>Tikta (bitter)</i>	<i>Nimba</i>
<i>Katu (pungent)</i>	<i>Karanj</i>
<i>Kashaya (astringent)</i>	<i>Babool</i>

According to Acharya Vagbhat: *Arka, Nyagrodh, Khadir, Karanj, Kukubhaadi*⁴

Acharya Sushrut also adds the stem with a sweet taste for *Dant Pawan*.

Length of stem advised by Acharya Sushrut is 10 *Angula*⁵(10 fingers) and by *vagbhat* is 12 *Angula*; whereas thickness like a little finger.

Time of *Dant Pawan Kriya*: Two times in a day; morning and evening; told by *acharya charak*.⁶

As per modern science to clean our teeth and oral cavity toothbrush and toothpaste or mouth flux should be used which contains synthetic chemicals like high fluoride. Limited use of fluoride is good but when it comes to cosmetic purposes and the use of toothpaste with heavy chemicals like fluoride, it tends to destroy enamel and ultimately lead to tooth damage. This in turn shows the symptoms of sensitivity, receding gums, bleeding gums, toothache etc. Despite so many toothpastes and toothbrushes, the overall oral health of society is declining day by day. There must be some lacunae in this principle.

Properties of plant sticks used for Dant Pawan kriya

Nimba- *Azadiracta Indica*

It is *tikta* in *rasa*(taste) and *sheet* in *veerya* (potency) so pacifies both *kapha* and *pitta*. It is a very good blood cleanser. *Neem* is very much helpful in itching, wounds healing and skin disorders.⁷

Madhuk- *Madhuka Longifolia*

It is *madhur* and *kashaya* in *rasa* and pacifies *vata* and *pitta dosha* and increases *kapha dosha*. Chewing this stick helps the oral cavity to strengthen due to *kashaya* and *madhur rasa*. Other than this *madhuka* is very much beneficial in abdominal ulcers. And it is also a very potent brain tonic i.e *medhya rasayan*. (Mind tonic)⁸

Babool- *Acacia Nilotica*⁹

Baboola is *kashaya* in *rasa* and a coolant, but due to *ruksha guna*(rough) and *katu vipak* it pacifies *kapha dosha*. Chewing this stem leads to ingestion of its *rasa* which provides nourishment and cleansing of the oral cavity and also helps to improve the overall digestion process of the body.

Karanj- *Pongamia Pinnata*¹⁰

Karanj is *tikta, katu* and *kashaya* in *ras*, having hot potency, *laghu* in *guna* and balances *kapha* and *vata*. *Swarasa* of *karanj* is useful in skin disease, healing wounds, treating worms and is also good for diabetes and urinary tract infection.

Khadir- *Acacia Catechu*¹¹

One of its synonyms is '*dantadhavana*' which means use as a toothbrush. Its *rasa* is *tikta, kashaya* and *vipaka* is *katu* with *sheeta*(cold) potency. So, it balances *kapha* and *pitta*. Other than oral benefits it prevents skin diseases, treats cough and cold, relieves indigestion, useful in anaemia and bleeding disorders.

Arjuna- *Terminalia Arjuna*¹²

It is also *kashaya* in *rasa, katu* in *vipaka, ruksha* in *guna* and *sheeta* in potency. So, helps in balancing *kapha dosha*. Its *prabhav* i.e special effect is '*hridya*' i.e cardiac tonic. It relieves tiredness, fatigue, *bhagna, arsha, prameha*, ulcers and many more.

Other useful herbs

Much research has been done on the effect of juices of different herbs; like *neem*, turmeric, mango leaves, ginger, garlic etc. several studies are done on this justifying the ancient facts of using natural herbs for overall oral health. Turmeric being a very common drug used for multiple purposes shows its effect on oral health also. Turmeric contains curcumin which has outstanding benefits in the field of inflammation, anti-

cancerous properties, anti-microbial, antioxidant etc. Along with the local oral health benefits it also contributes to systemic health, having very beneficial effects on the cardiovascular system mainly by lowering cholesterol levels. On the gastric part, it always increases the digestive process and hence with the concept of *Ayurveda* improves digestive fire which in turn provides good nutrition to the body and fastens the healing process. That is why many studies show the significant role of curcumin in treating gastric ulcers.¹³

Similarly ginger also shows its benefits in oral health, like it is very much useful in toothache, strengthening of gum muscles, plaque removal, keeping cavities away, reducing the risk of gingivitis, and also has anti-inflammatory properties.¹⁴

Ayurveda having the concept of *rasayan* and *amla* is considered as one of the most potent single drugs *rasayan*. *Rasayan* promotes health and many studies have been done on this showing the results that *rasayan* are essential nutrients and have a significant role in the rejuvenation of body tissues.¹⁵ *Amla* is used for washing mouth or gargles as a decoction and shows good results in tissues regeneration. 2-3gm of powder can be ingested orally also.¹⁶

As teeth are considered as part of *asthi dhatu*, anything nourishing bone tissue will be good for teeth also, some outstanding examples are turmeric, *ashwagandha*, *cinnamon*, *shatavari* etc.

Lacunae in the modern concept of oral cleansing

The other thing is about the strength of the oral cavity. The strength of gums, jaw muscle, and other oral cavity muscular structures. There is a behaviour of muscle that the more it is used the more it gets strong. While brushing our teeth we are not at all using our jaw muscles, gums or oral cavity other muscles, we are just using our hands. Also, the more we got civilised we stopped eating raw fibrous food. Now we eat cooked, soft food which is again not helping in the exercise of the oral cavity. And this is supported by a study "Effects of gum chewing exercise on maximum bite force according to facial morphology" held in the Department of Orthodontics and Dentofacial Orthopedics, Institute of Biomedical Sciences, Tokushima University Graduate School, Japan and published by Clinical and

Experimental Dental Research. That is how gum-chewing exercise increases the maximum bite force.¹⁷ Similar to chewing gum in *dant pawan* we are chewing the stick, which is of much more use than chewing gum, as it is tougher, not at all synthetic and also releases juices which are not only good for the oral cavity but also for the rest of the body.

Benefits of Dant Pawan kriya

When we do *Dant Pawan* we are using our oral cavity muscles to chew the stem again and again, and then we make a brush of it to clean the depth between teeth. And for anti-bacterial or anti-fungal or any anti-pathogenic response, the juice of that particular stem works very efficiently. And this is how the more we use our oral cavity muscles and gums to chew, the stronger it gets.^{18,19}

Acharya charak says it helps remove bad smells, dryness and cleans the dirt or particles stuck in between the teeth.²⁰

Just like proper hygiene, proper exercise is also needed to maintain and gain more strength and that is why only toothpaste is not enough. *Dant Pawan* helps in both, gaining strength and cleaning the oral cavity.

And once you have good oral strength and oral hygiene it reflects overall the body as you can now chew your food properly, proper releasing and mixing of saliva is possible and psychologically one feels more comfortable and confident.

DISCUSSION

As gums are the base of teeth, and they have a muscular origin, it is very important to deal with them in the principles which work as strengthening of muscles. If the base is strong the rest of the building will be strong, similarly if the muscular part of our oral cavity is strong the rest of the part is going to be healthy. Good blood supply, hence, the good nutrition will reach them. Exercise of muscle is the key point for muscle growth and muscle strength and with the modern lifestyle, we are lacking it. But now society understands the value of these holistic procedures and in the marketplace also herbal chewing sticks are available. Those who can't get it directly from the tree can buy it from the marketplace also. Apart from muscular

strength it also deals with anti-microbial activities and the juices of herbal stems play an important role in cleaning and nutrition both.

The person with *vata* predominance may develop atrophic or receding gums problems, so those plants with sweet-bitter/astringent taste such as *glycyrrhiza glabra* i.e *madhuyasthi*, or *acacia catechu* could be of much use for chewing and cleaning. Similarly, a person with dominant *pitta dosha* having *pittaj* disorders can chew stems with bitter taste like *neem* i.e *azadirachta India* or *arjuna* i.e *terminalia arjuna*. People with *kapha* dominance are likely to have pale and hypertrophic gums for them stems with pungent taste i.e the *calatropis procera* or *caesalpenia bonduc* i.e *latakaranj* can be used.

Many studies show the anti-cancerous properties of *Azadirachta Indica* and its role in the prevention of plague. It is advised to take the fresh stem of the specific tree. The neem is the most famous and widely used chewing stick and is also easily available. The stem should be healthy, soft and must be taken from a healthy tree. Chewing of these stems shows the anti-plague activity, levelling of biting surface and profuse salivary secretions.

In this article, we have reviewed the ancient text for maintaining oral hygiene and also seen the modern procedures of oral hygiene. The biggest limitation we found in the modern concept is the lack of strengthening of oral muscles. The ancient concept of datum fulfills the limitation. Along with it, another drawback is that we are using synthetic chemicals which are not good for ingestion, whereas in datum you can engulf the juice of stem which is anyhow useful in several other ways depending upon the properties of stem you are using.

In my understanding, this is the most important thing that needs to be accepted by society for dental health.

CONCLUSION

As literature says that how stem chewing improves oral health and as modern research shows how it is important for the muscle to exercise to become stronger and healthier, it is clear that stem chewing procedures are not just helpful but also necessary for today's era.

Adapting this ancient way of maintaining oral hygiene will reflect a hugely positive result on oral cavity strength and also on overall health.

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