

**CONCEPT OF *DANTA* IN AYURVEDA – A REVIEW STUDY**

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**ABSTRACT**

*Danta* is considered as an *Asthi prakara* and categorized under *Ruchakasthi prakara* and they are thirty two in number. *Sandhi* present in *Danta* is told as *Ulookalasantdhi* and its number is taken as thirty two. “*Danta*” refers to tooth and “*Shastra*” refers to the science. *Danta Shastra* or dentistry refers to the Science which deals about the teeth. In *Āyurveda* it is one of the sub specialties of the *Shaalakya Tantra*, the branch of *Āyurveda* which deals with the diseases of head and neck. Description regarding *Danta* is not found properly in any texts, but scattered information is available in various texts.

**Keywords** *Danta*, Ayurveda, teeth

**INTRODUCTION:**

“*Danta*” refers to tooth and “*Shastra*” refers to the science. *Danta Shastra* or dentistry refers to the Science which deals about the teeth. In *Āyurveda* it is one of the sub specialties of the *Shaalakya Tantra*, the branch of *Āyurveda* which deals with the diseases of head and neck.<sup>1</sup> Description regarding *Danta* is not found properly in any texts, but scattered information is available in various texts.

**Definition of *danta*:**

*Danta* is a *Pullinga* word. It is a part concerned with *Charvana* or mastication and which is a type of *Asthi*.<sup>2</sup>

**Literal meaning of *danta*** is a tooth, tusk, fang, an elephant tusk or ivory, the point of an arrow, the number 32, the peak or ridge of mountain.<sup>3</sup>

**Synonyms of *danta*** are *Dashana*, *Radana*, *Rada*, *Dwija*, *Kharu*.<sup>4</sup>

***Pramāna* of *danta*** is two *Angula*.<sup>5</sup> According to *Dalhana*, the part which is covered by the *Mamsa* is one *Angula* and the exposed part is one *Angula*.

**Classification of *danta*:**

In *Kashyapa samhita*, *Danta* is classified in two ways:

**Table-1 Based on frequency of eruption<sup>6</sup>**

Sl.No	Name of <i>Danta</i>	Number	Quality
1.	Sakrujjata	8	Erupt only once
2.	Dwija	24	Erupt twice

**Table-2 Based on morphology<sup>6</sup>**

Sl.No	Name of <i>Danta</i>	Number	Position
1.	Rajadanta	4	Middle upper and lower teeth
2.	Vasta	4	On sides of Rajadanta
3.	Damstra	4	Lateral to Vasta
4.	Hanavya	20	Lateral to Damstra

***Dantootpatti*:** The appearance of *Danta* or dentation in the oral cavity is called as *Dantotpatti*.<sup>7</sup> According to *Āyurveda*, in human beings fourth month onwards tooth are inseminated. Birth with teeth, first eruption of upper teeth, eruption of

scattered teeth, presence of less teeth, more teeth, *Karaala Danta*, discoloured teeth, cracked teeth are considered as inauspicious in *Āyurveda*.<sup>8</sup>

**Cause for dantotpatti / danta sambhava hetu:**

*Asthi* and *Majja* are responsible for the formation of teeth. Along with these two role of *Rakta* is also accepted in *Āyurveda*. Falling and reappearance of teeth mainly depends up on the status of *Asthi* and *Majja* as these are said to be the basic factors responsible for the *Dantotpatti*.<sup>9</sup>

**Reasons for Damage of Tooth and Re-Eruption Deficit (*Dantanam Asambhava Hetu*):**

New teeth do not erupt again in the place of those teeth which have been pulled out by force because of loss/injury to the tissues at the root level which supports them (gums), loss of continuity, profuse bleeding and loss of blood vessels and due to trauma, the damaged vessels do not regenerated again.

When the powerful *vata* either alone or associated with *pitta*, gets localised in the gums and dries up the bone and marrow tissues, then eruption of teeth becomes impossible.<sup>10</sup>

***Dantodbhava kala:***

Teeth erupt during the 8<sup>th</sup> month of age or afterwards in children of long life, whereas in others it is from the 4<sup>th</sup> month. These children greatly suffer from pain of eruption of teeth very early in life will not develop the strength of all the tissues to the full.<sup>11</sup>

**Method of *dantodbhava:***

*Asthi* and *Majja Dhatu* undergoing ripening in course of time, when get localised in the receptacle/ support of teeth (gums) then there occurs slight swelling, by the rubbing of the upper and lower gums. Horripilation appear in the body, because of the presence of *kapha* at the place causes itching, child bites nipple of the mother when child doesn't get anything; it yawns often. *Vata* gets aggravated and localised in the roots of the teeth, is accompanied by *kapha* localised in the bone and marrow tissues, moves in all places, along with *pitta*, these vitiate the other *dhatu*s and *malas* and produce different kinds of secondary diseases.<sup>8, 12</sup>

***Dantodbhava gada:***

Eruption of teeth is the cause for diseases like fever, head ache, thirst, giddiness, *abhishyanda*, *kukunaka*, *pothaki*, vomiting, cough, dyspnoea, diarrhoea and herpes.<sup>13</sup>

**Types of *dantotbheda:***<sup>14</sup>

*Dantotpatti* is said to be of four types.

1. *Saamudga:* - It means the number of teeth is less here due to falling.
2. *Samvruta:* It means the inauspicious and dirty teeth
3. *Vivruta:* It means worn-out and invariably affected teeth with salivation. Here teeth get easily discoloured due to being uncovered by the lips and easily afflicted with diseases.
4. *Danta Sampat:* It includes some features of *Danta* and *Dantabandhana*, they are as follows,

**Features of *Danta* includes,**

*Poornata*(completeness),  
*Ghanata*(compactness),*Samata* (evenness),  
*Shuklata*(whiteness),  
*Snigdhatata*(unctuousness),  
*Shlakshna*(smoothness),  
*Nirmalata*(cleanliness),  
*Niramayata*(disease free state),  
*Kinchiduttaronnatata*(slight protuberance of upper teeth).

**Features of *Dantabandhana* includes,**

*Samata*(evenness), *Raktata*(redness),  
*Snigdhatata*(unctuousness), *Bruhat*, Ghana and *Sthira Moola*(compactness of gums with big and stable roots).<sup>15</sup>

**Lakshana of *danta:***

It is told by *Āchaarya Vāgbhata* as *Sukshma Danta*, *Snigdha Dashana*, white or whitish in colour, thick or firm in nature and evenly arrangement of teeth with *Dantamoola* ( root) should be Goodha (deep seated).<sup>16</sup>

***Swaroopa of danta:***

*Āchaarya Shaarangadhara* has mentioned about the *Swaroopa* of *Danta* as whitish in colour, smooth, strong and 32 in numbers in adults and 24 in children. He mentioned its function as *Charvana* (mastication) and *Chedana* (cutting).<sup>11</sup>

***Swaroopa of danta in dheerghāyu:***

*Mahan Dashana* – dimension of the teeth exceeds the average size of the teeth.

*Sunivista Danta* – well arrangement of teeth understood by looking in to the gums.

*Mahadasya* – size of the mouth should be big.

*Ghana Danta* – thick or firm teeth.

*Shlakshana* – smooth.

*Snigdha* – unctuous.

*Sita* – color of teeth should be whitish.

*Sama* – teeth are placed evenly.<sup>18,19,20</sup>

***Swaroopa of danta in sāra lakshana:***

In *Shukra Sara lakshana* it is told as the *Danta* should have *Snigdha, Samhata, Shweta, Vrutta* and *Shikhara*.<sup>21,22</sup>

In *Asthi Sara Lakshana, Sthula Danta, Sthira Danta* (firm) are told.<sup>22</sup>

***Danta & dantamoola gata roga:***<sup>23, 24,25</sup>

In *Sushruta Samhita, Dantamoola roga* and *Dantagata Rogas* are explained in detail.

**Table-3 Danta Roga:**

Name of the Disease	Dosha involved	Lakshana according to Sushruta	Lakshana according to Vagbhata
<i>Dhalana</i>	<i>Vata.</i>	Frequent crushing pain with severe distress.	<i>Sitakya</i> (Dhalana) teeth tolerant to hot things, Causing more discomfort by touch of cold things feels like splinting because of pain.
<i>Krimidanta</i>	<i>Vata.</i>	Tooth is black with loose cavity, discharge, swollen and severely painful pain appearing without any apparent cause.	<i>Vata</i> invading the tooth along with its roots dries up the marrow inside and causes the waste product of food to fill up the cavity due to putrefication, setting in minute invisible worms develop there.
<i>Danta Harsha</i>	<i>Vata</i>	Teeth do not tolerate, cold and hot and any other touch	Teeth becomes intolerant air, eating sour & cold things, feels painful. This is produced by eating too much of sour things.
<i>Bhanjanaka</i>	<i>Kapha &amp; Vata</i>	Face gets distorted & teeth cracked with severe pain	
<i>Sharkara</i>	<i>Deposited diet</i>	Diet is deposited and fixed on the teeth, destroying their normal qualities,	<i>Kapha</i> accumulates on the teeth and gets dried up by <i>Vata</i> due to poor hygiene leading to bad smell
<i>Kapalika</i>	<i>Gravel</i>	When enamel of teeth gets cracked with gravel it destroys the teeth	If <i>Danta Sharkara</i> is neglected leads to falling out loosening of the crown of teeth.
<i>Shava Danta</i>		Blackish discoloration of the teeth.	Same opinion
<i>Hanumoksha</i>	<i>Vata</i>	Dislocation of <i>Hanusandhi</i> .	

**Table-4 Dantamoolagata Roga:**

<b>Name of the disease</b>	<b>Dosha Involved</b>	<b>Lakshana according to Sushruta</b>	<b>Lakshana according to Vagbhata</b>
<i>Sitaada</i>	<i>Kapha &amp; Rakta,</i>	Sudden bleeding in gums with foul smell, blackish moistened & soft & get necrosed one after the other	Same opinion
<i>Danta Puppataka</i>	<i>Kapha &amp; Rakta</i>	There is painful two or three teeth	Swelling resembling the Badaraasma
<i>Dantavesta</i>	<i>Vitiated Rakta</i>	Discharge of pus and blood, with looseness of teeth	
<i>Saushirya</i>	<i>Kapha &amp; Rakta.</i>	Painful swelling with excessive salivation and itching caused.	From aggravation of Rakta&Pitta. Swelling at the root of teeth, pain, flow of saliva, leading to depletion of the gums
<i>Mahasaushirya</i>	<i>All Dosha</i>	A tooth becomes loose, palate is cracked, gums are suppurated & there is pain in mouth.	Same opinion
<i>Paridara</i>	<i>Pitta &amp; Kapha</i>	Bleeding gums when gums gets necrosed and patient spits blood	
<i>Upakusha</i>	<i>Pitta &amp; Rakta</i>	Burning sensation and pain in gums, loosening of the teeth, bleeding on movement, mild pain, and inflammation after bleeding and foul smell in mouth	Same opinion
<i>Vaidarbha</i>	<i>Trauma</i>	By rubbing the gums, there appears a large swelling with loosening of teeth	Same opinion
<i>Vardhana</i>	<i>Vata</i>	Extra tooth appears with intense pain which subsides after tooth has come out	
<i>Adhimamsa</i>	<i>Kapha</i>	Molar teeth in the jaw appear and large painful swelling with excessive salivation	A nail (peg) like swelling at the end of the teeth causing pain in lower jaw and ear, obstructing swallowing of food
<i>Danta Nadi</i>	<i>All Dosha</i>	Vitiated <i>dosha</i> produces <i>nadi</i> , discharges pus/ blood.	

**DISCUSSION:** In Ayurveda, description of *danta* is available in scattered manner. *Danta Shastra* is not described under any chapter but information of *Danta* is available in all Samhitas. *Danta* is considered as an *Asthi prakara* and categorized under *Ruchakasthi prakara* and they are thirty two in number. *Sandhi* present in *Danta* is told as *Ulookalasanghi* and its number is taken as thirty two. There is a lot of information regarding *Danta* in Kashyapa Samhita. Description of *Dantopatti*, Eruption of *danta*, classification of *danta* etc are available in *Kashyapa* samhita. In Sushruta Samhita and Vagbhata samhita, there is a detailed description of *Danta Roga* and *Dantamula roga*. Their management also explained in detail in both the Samhitas. Detailed information of Dental hygiene, Different instruments and drugs used for dental hygiene are also available in Ayurveda.

**CONCLUSION:**

Shaalakya tantra is one among the eight branches of Ayurveda. It includes the information regarding diseases of head and neck and also includes the information of *Danta*. There is a detailed description of clinical aspects of *Danta* and also treatment of various dental diseases available in different Samhitas. but description of anatomical aspects of *Danta* is in scattered manner and it is well explained in Kashyapa Samhita.

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