

LITERATURE REVIEW ON KRIMIDANTA

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Corresponding Author*Komal Kokate**MD Scholar, Final Year,
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Mahavidyalaya, Pune,
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Krimidanta is described by *Achaarya Sushruta* under *Danta Rogas*. *Krimi*- worms and *Danta*- teeth. Worms in teeth said that *Krimidanta*. *Aacharya Sushruta*, *Acharya Yogratnakar*, *Aacharya Bhavprakash* have mentioned *Krimidanta* in 8 *Danta Rogas*, *Aacharya Vagbhat* has mentioned *Krimidanta* in 10 *Danta Rogas* and *Aacharya Harita* mention *Krimidanta* in 5 *Danta Rrogas*. Features of *Krimidanta* are blackish discolouration of teeth, swelling, cavity formation, blood oozing, pus and sever pain. On the basis of clinical signs and symptoms, it can be compared with dental caries. Dental caries is caused by microbial activity at the tooth surface, is the gradual destruction of enamel, dentine and cementum. It is the most prevalent

dental issue in the world. So, need to elaborate and to study it deep on it. In this study gather information from different *Samhita*'s about signs, symptoms and treatment regarding to *Krimidanta*.

KEYWORDS:- *Krimidanta*, dental caries, *Danta Rogas*.**INTRODUCTION**

Teeth are valuable organs of the body, governing lot of functions like chewing, speech control, giving shape to the mouth and maintain the beauty of the face; once they are destroyed, they cannot regrow.^[1]

Dentistry is a field that handles dental issues. In Ayurveda the branch that deals with ailments of the head and neck is known as *Shalakya Tantra*. The *Shalakya Tantra* describes the *Danta*

and its *Rogs*. *Achaarya Sushruta* told eight types of *Danta Rogas*; *Krimidanta* is one of them. Blackish discoloration of teeth, cavity formation, blood oozing and sever pain are characteristics of *Krimidanta*.

In current area the prevalence of dental caries is 60-65 % in India.^[2] 92% of adults 20 to 64 have had dental caries in their permanent teeth.^[3] 26% of adults 20 to 64 have untreated decay.^[4] Adults 20 to 64 have an average of 3.28 decayed or missing permanent teeth and 13.65 decayed and missing permanent surfaces. And the age group 6-8 years have 55.4% dental caries issues.^[5]

Dental caries is caused by microbial activity at the tooth surface, is the gradual destruction of enamel, dentine and cementum. As per World Health Organization (WHO) technical report 1995, 19 billion individuals per year are affected by dental caries. Thus, this disease poses a challenge to the dentists.^[1] The word caries is Latin word meaning 'rot' or 'decay'. The course of the disease is a complicated and dynamic process that is influenced by a wide range of circumstances. Dental caries is a serious health issue with symptoms that remain throughout life despite treatment, despite the fact that excellent treatments for prevention and management of the condition are known. It is prevalent all over world and effects of all gender, from various racial backgrounds, socioeconomic levels, and age ranges. Some individuals avoid scares for unclear reasons. Numerous etiological factors remain unclear after decades of in-depth research, and efforts at prevention have only had limited effectiveness.

❖ MATERIALS AND METHODS

- Concept of *Danta* from different *Samhita*'s
- Concept of *Krimidanta* from *Ayurvedic* texts.
- Concept of Dental caries
- Treatment modality of *Krimidanta* according *Ayurvedic* and modern prospective.

Definition of *danta*- The organ concerned with *Charvan* and Mastication.^[6]

Synonyms of *danta*- *Dashan*, *Rada*, *Radana* and *Danta*.

Some reference about *Danta* found in Vedic era.

In pre vedic period

- *Shree Ganesha* is called *Ekadanta*.
- *Ashwini Kumars* repaired teeth for *Pooshana*.

In vedic period

- In *Atharv Veda* for *Danta Shool* some drugs are mentioned like *Nygrodh*.
- In *Rugveda Shigru* is mentioned for *Danta Rogas*.

Samhita period

- *Garbha Sharir*- The development of *Danta* in embryonic life is not clearly mentioned in Samhita's. but it started when evolution of all body parts and sense organs that is in third month and ends around seventh month.^[7]
- By the *Accharya Kashyapa* teeth erupt which month in oral cavity, in fetal life teeth also erupt.^[8]
- *Praman* of *Danta*- Two *Anghula*^[9]
- *Bhava*- *Prithvij Bhav*^[10]
- Type of *Asthi*- *Ruchakasthi*^[11]
- Type of *Sandhi*- *Ulookhala Sandhi*^[12]
- *Mala*- *Danta* is *Medodhatu Mala*^[13]
- *Updhatu*- *Danta* is *Upadhatu* of *Asthi*^[14]
- No of teeth in varies Samhita's

Table no. 1: Number of teeth in varies Samhita's.

Sr. No.	Samhita	No of teeth
1	Charak Samhita	32
2	Sushruta Samhita	32
3	Kashyapa Samhita	32
4	Sharangdhar Samhita	32
5	Bhela Samhita	32
6	Ashtang Sanghrah	32
7	Ashtang Hrudaya	32

- Types of *Danta*- i) Based on Frequency of eruption, ii) Based on Morphology

Table no. 2: Classification of *danta* based on frequency of eruption^[15]

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

Table No 3: Classification of *danta* based on morphology.^[15]

Sr. No.	Name of <i>danta</i>	No.	Position
1	<i>Rajadanta</i>	4	Middle upper and lower teeth
2	<i>Vasta</i>	4	On sides of <i>Rajdanta</i>

3	<i>Damstra</i>	4	Lateral to <i>Vasta</i>
4	<i>Hanavya</i>	4	Lateral to <i>Damstra</i>

- *Dantobheda Kaala*

Table no. 4: *Dantobheda kaala*.^[16]

Month of Teeth	Effect of Teeth
4 th month	Decayed easily, weak teeth and prone for disease
5 th month	Have tendency to shed teeth, with disease and <i>Dantaharsh</i> rise.
6 th month	Discoloured, inverted and become carious.
7 th month	Irregular, dry, have on them and break off in to pieces.
8 th month	Have all qualities of teeth.

- Ways of eruption of *danta*

Table no. 5: Different ways of eruption of *danta*.^[17]

Ways	Effects
<i>Samudga</i>	Fall out of teeth soon and eruption in a malnourished child will be visible
<i>Samvruta</i>	Unlucky and filthy
<i>Vivruta</i>	Because of lips teeth will not covered properly.
<i>Dantasampat</i>	Evenness, complete less, whiteness, compactness, smoothness, unctuousness, disease free state cleanliness and slight protuberance of upper teeth will all be present.

❖ *Krimidanta*

Description about *Krimidanta* given in different *Samhita's* *Sushruta Samhita*, *Ashtanga Hrudaya Samhita*, *Madhav Nidan* and *Harita Samhita*.

Table no. 6: *Lakshans of krimidanta by acharya's*.^[18,19,20]

Sr. No.	<i>Samhitakar</i>	<i>Dosha involved in Krimidanta</i>	<i>Krimidanta Lakshanas</i>
1	<i>Acharya Sushruta</i>	<i>Vata</i>	Tooth is black with loose cavity, discharging, swollen and extremely painful with no obvious cause for the pain.
2.	<i>Acharya Vagbhata</i>	<i>Vata</i>	Swelling, black discoloration, shaking of teeth, and pus discharge, severe pain and disappears without any reason; putrefaction, minute worms develop inside.
3.	<i>Acharya Madhav Nidan</i>	<i>Vata</i>	As per <i>Sushruta</i>

- **Symptoms**

1. *Kruchrachidra*- Structure form like hole
2. *Shavadanta*- Discolouration of teeth
3. *Animittaruja*- Toothache
4. *Chalastrav*- Tooth mobility
5. *Shula*- Infected area of tooth get swellon.
6. *Puyastrav*- From gums pus licking starts
7. *Raktrastrav*- Blood oozing started.

- **Chikitsa**

Table no. 7: Chikitsa by acharya's. ^[21,22,23]

Sr. No	Achaarya Name	Chikitsa
1	<i>Achaarya Bharat Baishaya Ratnakar</i>	<ol style="list-style-type: none"> 1. <i>Dantyadi Churn</i> 2. <i>Ninyadi Prayog</i> 3. <i>Hingvadi Yog</i> 4. <i>Sarivadi Yog</i> 5. <i>Langli Lepa</i> 6. <i>Vishaladi Dhoop</i> 7. <i>Mundyadigutika</i>
2	<i>Achaarya Vagbhat</i>	<ol style="list-style-type: none"> 1. <i>Swedan</i> 2. <i>Viddha Karm</i> 3. <i>Gandush by Hingu Dravya</i> 4. <i>AgniKarma by Gud or Madhushista</i> 5. <i>Hingvadi Yog</i> 6. <i>Extraction of teeth</i>
3	<i>Achaarya Sushruta</i>	<ol style="list-style-type: none"> 1. <i>Swedan</i> 2. <i>Viddha Karma</i> 3. <i>Vathar Aypud Nasya</i> 4. <i>Sneh Gandush</i> 5. <i>Bhadradarvadi or Punarnava Lepa</i>

❖ **Dental caries**

Dental caries is an irreversible microbial disease of the calcified tissues of the teeth, characterized by demineralization of the inorganic portion and destruction of the organic substance of the tooth, which often leads to cavitations.

Etiology

Factors that influence in caries etiology.

Table no. 8: Factors that influence in caries etiology.^[24]

Host factors	Components
Tooth	1. Compositions 2. Morphologic characteristics 3. Position
Saliva	1. Composition a) Inorganic b) Organic 2. pH 3. Quantity 4. Viscosity 5. Antibacterial factors
Diet	1. Physical factors a) Quality of diet 2. Local factors a) Carbohydrate content b) Vitamin content c) Fluorine content
Systemic conditions	-

- Clinical classification of dental caries**

Table no. 9: Clinical classification of dental caries.^[24]

Factors	Classification
Morphology or Anatomical Site	1. Pit or Fissure caries 2. Smooth surface caries
Cariious Progression	1. Acute dental caries 2. Chronic dental caries And also 1. Primary Caries 2. Secondary Caries
As per age	1. Infancy 2. Adolescent

- Methods of caries control^[24]**

The methods of caries control classified into three general types:

Table no. 10: Methods of caries control.

Sr. No.	Methods	Description
1	Chemical Measures	For control dental caries number of chemical substances uses like Fluorine.
2	Nutritional measures	Dietary modification on public scale requires help and cooperation of food industry it plays an important role.

3	Mechanical measures	<ol style="list-style-type: none"> 1. Oral prophylaxis by the dentist 2. Toothbrushing 3. Mouth rinsing 4. Use of dental floss or toothpicks 5. Incorporation of detergent foods in the diet.
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❖ DISSCUSSION

Danta and its detail explanation mentioned by *Achaarya Sushruta* in *Sushruta Samhita Sharir Sthan* 5th chapter. *Achaarya Kashyapa* gives detailed explanation about *Danta* in *Kashyapa Samhita Sutrasthan* 20th chapter, he also told *Danta Sampata Lakshanas* in this chapter.

Achaarya Saharangdhara the only one who mention the *Danta Swoorpa*, *Danta* as *Mala* and *Danta* as *Updhatu* in his *Sharangdhar Samhita Poorvakhanda* 5th chapter.

Accurate *kaala* of *Dantotpatti* was not mentioned by any *Achaarya* but some theories mentioned by *Achaarya Bhavprakash*, when all sensory organs develop at 3rd month of embryonic life that time teeth can be develop.

Varies *Danta* and *Danta Moolgata Rogs* are described *Krimidanta* is one of them. The Description about *Krimidanta* Mentioned by *Achaarya Sushruta*, *Achaarya Vagbhat*, *Achaarya Harita*, *Achaarya Madhav Nidan* in their *Samhitas*. Mainly blackish discolouration of teeth, cavity formation, blood oozing, pus and extreme pain these symptoms are commonly found. Also, modern dentistry describes these symptoms. In treatment modularity.

❖ CONCLUSION

Teeth is related with *Danta*.in types of teeth as per *Ayurveda Rajadanta* compared to central incisors, *Vasta* can be compared to lateral incisors, *Danstra* are Canines and *Hanavya* are pre molar based on its position and functions. The *Dantotpatti Kaal* described in *Ayurveda* and eruption of teeth as per modern Dentistry both concepts are same as they explained appearance of teeth in oral cavity.

In *Ayurveda*, *Krimidanta* compared to dental caries based on its similar causes, sign and symptoms. The treatment in *Ayurveda* and modern dentistry are different. As Dentistry special branch on oral cavity. In dental caries maximum people preferred modern treatment as per *Ayurveda* so need to focus on it, as *Ayurveda* have less side effects and more advantages.

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