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## CRITICAL ANALYSIS OF *MUKHA ROGA* (ORODENTAL DISEASES) *NIDANA*

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### ABSTRACT

*Shalakyata* is one of the eight branches of *Ayurveda*, which deals with the diseases of *Urdhvajatrū- Mukharoga* (Oro-dental disease), *Netraroga* (eye disease), *Nasaroga* (Nose disease), *Karnaroga* (Ear disease) and *Shiroroga* (Disease of Head). The *Mukha* i.e. oral cavity is the gateway of the *Annavaha shrotas* (Digestive tract). Seven *Ayatana* (Structure), collectively called as *Mukha. Nidana* (cause) means the causal factor of disease. It is the primary factor which is responsible for the pathogenesis as well as progression of disease. *Acharya Sushruta* mention *Mukharoga* (disease of oral cavity) in *nidan sthan* but he did not mention *Nidana* for *Mukharoga* (Oro-dental disease). In *Swasthavritta*, in the chapter of *Dincharya* there is given proper guidelines for the *Mukha Swasthya Raksha* (Oral hygiene), i.e. *Dantadhavana* (Tooth brushing), *Jihwa nirlekhana* (Tongue scraping), *Gandusha* (Mouth wash), *Kavala* (Medicated Gargle), *Nasya* (Nasal drop), *Dhumapana* (Medicated smoke) etc. So we can consider negligence of *Mukha Dincharya* (Daily Oral hygiene) also as a responsible factor for *Mukha rog Nidana*. *Acharya Vagbhata*, *Yog Ratnakar* and *Bhav Prakasha* mentioned *Nidana* for *Mukharoga*. According to them *kapha dosha* is key factor for *Mukharoga*.

### KEYWORDS:

*Mukha roga* (Oro-dental disease), *Nidana*(cause), *Dosha*, Present era, life style.



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## INTRODUCTION:

*Nidana* (Cause) means the pivotal factor of any disease. It is the prime factor which is responsible for development of disease. *Acharya Charka* mentioned *Nidana* (Cause) as a *karan* (Tool). *Nidana* (Cause) is of various types. Some *Nidana* are *Sannikrusta* which cause instant *Doshprakopa* (Vitiating of dosh), some *Nidana* are *Viprakusta* which cause *Doshprakopa* and *Vyadhi* (Disease) after long period of times, some *Nidana* are *Vyadhi janak* which cause *Vyadhi*, some *Nidana* are *Doshajanak* which cause *Doshaprakopa* in body. some *Nidana* are *Ubhay janak* cause both *Doshaprakop* and *Vyadhi* at same time, some *Nidana* are *Pradhanika* which directly cause *Sthan dusti*, some *Nidana* are *Vyabhichari* which unable to produce *Roga* but they are capable of vitiating of *Dosha*, some are dominant cause while some are recessive cause.

*Mukharoga* are mentioned by *Acharya Charak*, *Acharya Sushruta*, *Acharya Vagbhata*, *Bhav Prakasha*, *Yog Ratnakar*, *Madhav nidana* and *Sharangdhara*. According to *Acharya*

*Sushruta* they are 65 in number. *Acharya Sushruta* mentioned general *Nidana* for *Netraroga* (eye disease), *Nasaroga* (Nose disease), *Karnaroga* (Ear disease) but not for *Mukharoga* (Oro-dental disease) but he mentioned all *Mukharoga* in *Nidansthan*. While *Acharya Vagbhata*, *Bhav prakasha* and *Yog Ratnakar* mentioned general *Nidana* for *Mukharoga*.

As we know *Nidana* is a causal factor – if these causative reasons are not addressed, it may lead to severe disease. Preventing the causative reason itself is a cure. If one understands the *Nidana* in detail, then it is easy to realize what to avoid for prevention of *Mukharoga* (Oro-dental disease). Understanding the power of the *Nidana* will benefit to understand what kind of power of treatment is required. If *Nidana* are understood to Present era, then it is easy for a doctor to analyse disease and convey about its effects. Thus an effort is made to analyse all *Mukharoga Nidana* to Present era. Each *Nidana* is explained in detail with subtitles i.e. Present era and *Dosha prakopa* (Vitiating of Dosha). The Present era heading explains the faulty life style practices related to particular *Nidana* in

present era, which affect the oral health directly or indirectly. *Dosha prakopa* (Vitiation of *Dosha*) heading clarifies the probable vitiation of *Dosha* due to regular

practice of that particular *Nidana*. At first all *Mukharoga Nidana* are divided in two group *Aharaaj* (Dietary) and *Viharaja* (Activity) *Nidana*.

<i>Aharaja</i> (Dietary) <i>Nidana</i>	<i>Viharaja</i> (Activity) <i>Nidana</i>
<i>Matsaya</i> (Fish)	<i>Avak shaiyaa</i> (Prone position)
<i>Mahisha pishita</i> (Buffalo meat)	<i>Danta dhavan dwesha</i> (Negligence of Tooth brushing )
<i>Varaha pishita</i> (Pork meat)	<i>Dhooma akurvanti</i> (Negligence of medicated smoke)
<i>Aam mulakam</i> (Reddish)	<i>Chardana akurvanti</i> (Negligence of vommiting)
<i>Masa soopa</i> (Black gram)	<i>Gandhusa akurvanti</i> (Negligence of mouth wash)
<i>Dadhi</i> (Curd)	<i>Anuchitam shiravyadhama</i> (Negligence of blood letting)
<i>Kshira</i> (Milk)	
<i>Shukta</i> (Alcoholic preaparation)	
<i>Ikshurasa</i> (sugarcan juice)	
<i>Phanita</i> (molasses)	

Due to above *Nidana sevan kapha dosha* get aggravated and become as a key factor for *Mukha roga* (Oridental diseases).

**VARIOUS NIDANAS EXPLAINED BY ACHARYA VAGHBHATTA<sup>i</sup> AND ITS ASSESSMENT TO PRESENT ERA ARE AS FOLLOWS;**

#### ***Matsaya*<sup>ii</sup> (Fish meat)**

Acharya Vabhatta told *Matsya* as a *Param kaphakara*.<sup>iii</sup>. according to Acharya Sushuruta there are two type of *Matysaya* (1) *Nadeya* (River fish) (2) *Samudra* (Sea fish).

Qualites of *Nadeya matsaya* (River fish) are *Madhura* (sweet), *Guru*(Heavy), *Vatanasaka*, ***Rakta(Blood)pitta Vardhak***, *Usna* (Hot), *Vrushya* (Aphrodisiac), *Snighdha* (Unctuous) and *Alpa varcha* (Stool) *kara*.

Quality of *Samudra matsaya* (Sea fish) are *Guru* (Heavy), *Snighdha* (Unctuous), *Madhura* (sweet), *AlpaPittakara*, *Usna Veerya* (Potency), *Vathara*, *Vrushya* (Aphrodisiac) *Varcha* (Stool) *kara*, ***Kaphavardhak***, and *Balya* (Powerful).

**PRESENT ERA** – Intake of Alaskan salmon, Cod, Herring, Mahi-mahi, Mackerel, Perch, Rainbow trout, Sardines

etc. fish (Fish can take in harmful chemicals from the water and the food they eat. Chemicals like mercury and PCBs can build up in their bodies over time. High levels of mercury cause bleeding gums, metallic taste, foul breath, burning sensation in the mouth, excessive salivation, ulcers in the mouth, leukoplakia (white patches), oral lichen planus, Bell's palsy, gingivitis, burning sensation in the mouth or throat, and periodontal infection and Long-term exposure to PCBs (Polychlorinated biphenyls) may cause developmental defects of enamel. Eating salmon and other fatty fish such as sardines, mackerel, and tuna can help to have stronger teeth. These fish types are rich in calcium and vitamin D but due to excessive intake of calcium can lead to gum disease, plaque deposits and cause oral disease.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha, pitta and Rakta (Blood).**

**Mahisha pishita<sup>iv</sup> (Buffalo meat)**

Qualites of *Mahisha pishita* (Buffalo meat) are *Ushana* (Hot), *Atyant Guru* (Heavy), *SwapnaiKrut* (Increase sleep), *Dadhyakrut* and *Pushthikrut* (Nourishment).

**PRESENT ERA** – Intake of Buffalo meat contains 5.12% of sarcoplasmic and 7.19% of myofibrillar proteins with a sarcoplasmic and myofibrillar protein extractability of

65–68mg/g protein and 148–160mg/g protein, respectively. In addition to that, the frequency of protein intake could be directly associated with increased dental caries, plaque accumulation, and gingivitis. So, when one purposely up the level of protein intake, further increasing risks to teeth. Such diets can also reduce tooth enamel.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha, pitta.**

**Varaha pishita<sup>v</sup> : (Pork meat)**

Qualites of *Varaha pishita* (Buffalo meat) are *Shrama* (Fatigue) *Hara, Ruchi* (Appetit), *Shukra Baalaprada* and same as *Mahish pishita* (Buffalo meat).

**PRESENT ERA** – High levels of Cadmium and lead can be found in the meat of wild boars and in pork meat product. lead and Cadmium accumulate in the kidneys and to a lesser extent in the liver, whereas lead also accumulates in the **bone**. A significant increase of cadmium levels in the teeth in comparison to the control, cause a slight shift in the colour and reduction of pigmented enamel length, higher surface irregularity and increase in pigmented enamel hardness. High level of Lead replace calcium in enamel and become incorporated into the enamel of developing teeth resulting in a thin, defective enamel (the condition is termed enamel

hypoplasia); such teeth are susceptible to dental caries.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha, Pitta.**

***Aam mulakam*<sup>vi</sup> : (Radish)**

Qualites of *Aam mulakam* (Radish) are *Guru* (Heavy), *Vishtambhai* (~ Constipation), *Tikshana* (Sharp) and *Tridoshaprakopaka*.

**PRESENT ERA** – Four major organic acids are present in the roots of the radish: oxalic, malic, malonic, and erythorbic acid. This acid is said to have bleaching properties, which may help lighten stained teeth. But in excess it does erosion of teeth. Malic acid can also increase saliva production in people with dry mouth but in excess it causes hyper salivation.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Tridoshaprakopaka.**

***Masa soopa*<sup>vii</sup> : (Black gram)**

Qualites of *Masa* (Black gram) are *Snigdha* (Unctuous), *Bala* (Strength) *Vardhaka*, *Kaphakaraka*, *Mala* (Stool) *vardhaka*, *Sara*, *Pittakraka*, *Pachana* (Digestive), *Guru* (Heavy), *Ushana* (Hot), *Vatanasaka*, *Madhura* (sweet), *Shukra Vardhaka* and *Virechaka* (Purgative).

**PRESENT ERA** –Black gram holds a high protein value than most of the legumes. It is also an excellent source of dietary fiber, isoflavones, vitamin B complex, iron, copper, calcium, magnesium, zinc, potassium and phosphorus. While protein, by itself, is not bad for oral health, the biological process body uses to break it down can have adverse effects. body produces high levels of acid when breaking down protein, which is bad for teeth. This can cause tooth decay, gum disease, and other oral health problems. When there is more phosphorus than calcium in the body, the body will use calcium stored in bones. This can cause osteoporosis (brittle bones) and lead to gum and teeth problems.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha and Pitta karaka.**

***Dadhi*<sup>viii</sup> : (Curd)**

Qualites of *Dadhi* (Curd) are *Amla* (Sour) *Rasa*, *Grahi*, *Guru* (Heavy), *Ushna* (Hot), *Vatashamak*, *Meda* (Fat) *vardhaka*, *Shukravardhaka*, *Kaphavardhaka*, *Pittakaraka*, *Rakta* (Blood) *karaka*, *Agni* (Digestive power) *Vardhaka*, *Sotha* (oedema) *karaaka* and *Ruchi* (Appetite) *Karaka*.

**PRESENT ERA** – Intake of Curd and other items making from curd can lead to excess mucus development in mouth.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha, Pitta and Rakta (Blood).**

**Kshira<sup>ix</sup> : (Milk)**

Qualites of *kshira* (Milk) are *Madhura* (sweet), *Snigdha* (unctous), *Ojasav* and *Dhatuwardhanama*, *Vata- Pitta Shaman*, *Veerya* (Potency) *vardhka*, *Kaphakaraka*, *Guru* (Heavy), and *Shitala* (cold).

**PRESENT ERA** – All types of milk can cause cavities if they are inappropriately consumed. For example, cavities on the upper front teeth can develop if a baby with teeth is put to bed at night with a bottle of milk.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha vardhaka.**

**Shukta<sup>x</sup> : (Alcoholic preparations)**

Qualites of *shukta* (Alcoholic preparation) are **Rakta (Blood) -Pitta-Kapha** *Karaka*, *Vatanulomana*, *Usna* (Hot), *Tikshana* (Sharp), *Ruksha* (Dry), *Amlarasa* (Sour) *Pradhana*, *Hridhya*, *Ruchi* (Appetite) *karakara*, *Sara*, *Agnidipana*, and *Shital Sparshi* (Cold in touch).

**PRESENT ERA** – The alcoholic beverages with the presence of all five taste with time when changes mainly to *Amla* rasa then the same is called *Shukta Kalpana* or say Acidic beverages. The acidity that comes with sour can greatly damage the enamel on teeth. Intake of excessive alcohol

use can lead to the development of chronic diseases and other serious problems including: High blood pressure, heart disease, stroke, liver disease, and digestive problems. Cancer of the breast, mouth, throat, esophagus, voice box, liver, colon, and rectum.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Rakta (Blood), Pitta, Kapha Karaaka.**

**Ikshurasa<sup>xi</sup> : (sugarcan juice)**

Qualites of *Ikshurasa* (Sugarcan juice) are *Guru* (Heavy), *Snigdha* (Unctous), *Brimhana* (Nourishing), *Vrushya* (*Aphrodisiac*), *Shitala* (Cold), *Madhura* (sweet), *Sara*, *Rakta (Blood)* *pitta Nashaka*, *Kaphavardhaka* and *Mutra* (Urine) *Vardhaka*.

**PRESENT ERA** – Intake of Raw Cane sugar also presents negatives for oral health as its high sucrose content is easily broken down by bacteria in the mouth, depositing acidic waste that leads to tooth decay.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha vardhaka.**

**Phanita<sup>xii</sup> : (~ Molasses)<sup>xiii</sup>**

Qualites of *Phanita* (Molasses) are *Guru* (Heavy), *Abhisyandi* (Oozing), *Chayakruta*, and *Mutra* (Urine) *sodhana*.

**PRESENT ERA** – Intake of molasses increased the surface roughness of primary tooth enamel. Drinking a sugary drink more

than twice daily nearly triples risk of losing more than six teeth.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha vardhaka.**

**Avaka shaiyaa: (Sleep in Prone position)**

**PRESENT ERA –** The position that one sleeps in often leads to drool pooling inside the mouth. People sleep on their side, or on their stomach, are more likely to drool when they sleep. Especially if they tend to breathe through mouth, or if they have narrow sinus passages, the accumulated drool can begin to slip out from lips when they open to breathe. Too much saliva can cause problems with talking and eating, along with chapped lips and skin infections. Hypersalivation and drooling can also cause social anxiety and diminished self-esteem.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha vardhaka and kleda (moisture) vardhaka.**

**Danta dhavan dwesha <sup>xiv</sup> : (Avoidance of Tooth brushing)**

Daily *Danta Dhavana* (Tooth brushing) removes *Danta Daurgandhyata* (Foul smell), *Danta upadeha* (Impurity), *make mouth clear, treat Aruchi* (Anorexia) and also it does *Apkarshana of sleshma*. who don't do *Dantadhavan* daily ultimately lead accumulation of *Kapha* and *Mala*

(Impurity) in mouth which become causative factor for *Mukharoga*. and if any *Mukha roga take* manifestation than avoid *Dantadhvana*.

**PRESENT ERA –** (avoidance of tooth brushing, flossing, and mouth gargles) It is important to brush teeth and flossing to prevent gum disease. Refusal to brush one's teeth for several days can lead to the onset of gum disease. Brushing ensures the removal of plaque, which is the primary cause for tooth decay and gum disease; it also arrests the build-up of any plaque formation.

**DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha, Rakta (Blood) dusti kara.**

**Dhoomapana <sup>xv</sup> : (Medicated smoke)**

*Dhooma pana* strengthen hair, teeth, beard, make oral cavity clear and free from bad smell. it also helpful in *Kasa* (Cough), *Aruchi* (Anorexia) and *Aasyoplepa*. *Acharya Shusuruta* specially mentioned that use of *Dhoompama* prevent *Vata-Kapha janya Mukharoga*. who don't do *Dhoomapana* according to *Ritu* (Season) and *Avastha* (Stage) ultimately lead accumulation of *Kapha* and *Mala* in mouth which become causative factor for *Mukharoga*.

**PRESENT ERA** – Smoking can impact on oral health. People who smoke are at a higher risk of developing mouth cancer (oral), gum problems, losing teeth, decay on the roots of teeth, and complications after tooth removal and gum and oral surgery. while *Ayurvedic Dhumpana* (Medicated smoke) prevent oral health.

### **DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha.**

#### **Vamana<sup>xvi</sup> : (vomiting)**

*Vamana karma* is one among the *Panchakarma*. it is a type of *Shodhan* (purification) therapy. In our *Samhita* specific *Panchakarma* are mentioned according to *Ritu* (Season) and *Avstha* (Stage) of *Dosha*. So by doing *Vamana* according to *Ritu* and *Avstha* of *Dosha* pacify *Kasa* (Cough), *Upalepa*, *Swarbheda*, *Atitandra* (Drowsiness), *Mukhadorgandhyata* (Foul smell) and *Kapha prasek* (Excessive salivation). One should not follow this ultimately lead to accumulation of *Kapha Dosha* which is a main causative factor for *Mukharoga*.

**PRESENT ERA** – Frequent vomiting can have a negative effect on oral health. Issues include dryness, sores, redness of the mouth and tongue, chronic sore throats, and erosion of the enamel that protects teeth. Erosion increases the risk of decay, causing more cavities and sensitivity of the teeth.

### **DOSHA PRAKOPA (VITIATION OF DOSHA) –Kapha.**

#### **Gandhusa<sup>xvii</sup> : (Mouth wash)**

*Nitya sneha Gandhusa* (Mouth wash) *dharana* is *Mukhavairsya hara*, *Daurgandhya hara* (Foul smelling), *Sophajadya* (Stiffness) *hara*, and *Dantadadyakara* (Strengthen teeth). It protects teeth from *Danta kshya* (Dental decay). Make teeth strong and prevent from *Mukharoga*. One should not follow this ultimately lead *Mukhadougandhyata* and *Vairasya* which vitiate *Sthanik Dosha* and cause *Mukha roga*.

**PRESENT ERA** – In clinical studies, it's been shown that mouthwashes can reduce plaque biofilm, kill bacteria in hard-to-reach places below the gums, and eliminate bacteria on non-tooth oral surfaces including the cheeks, tongue, and more. Herbal mouthwashes have potential benefits in plaque and inflammation control as supplements to the daily oral hygiene of patients with gingivitis.

### **DOSHA PRAKOPA (VITIATION OF DOSHA) – Kapha.**

#### **Anuchita shiravedhanam<sup>xviii</sup> : (Improper Bloodletting)**

If *Shiravyadha* (Vein puncture) is done in *Rakta* (Blood) *mokashana ayogya purusha*, in *Bala* (Child), *Vruddha* (old people) etc, in unappropriate season and *Avastha*

(Stage), without following *Purvakarma*, *Pradhan karma* and *Paschat karma* properly. which lead to *Ayoga* (Improper) of *shiravedhna* (vein puncture) and cause various diseases.

**PRESENT ERA** – Raktamokshana (bloodletting) will remove blood from overloaded vessels which will reduce symptoms like inflammation and bleeding gums. Also, increased drainage will reduce the venous congestion and pressure that can helps in reduction of symptoms like pain and discolouration. It will also increase the oxygenated blood flow which will helps in regeneration of gingival tissues. Gingivitis can progress to periodontitis by progression of tissue damage which will occur due to deepening the sulcus and stasis of sulcular fluid which contains lots of toxins like bacteria, macrophages etc., Raktamokshana (bloodletting) will remove that fluid from the sulcus which can be helpful in progression of the disease. Deep sulcus with toxin which leads to periodontal pockets which can further damage the whole of periodontium which also can be prevent by Raktamokshana.

Periodontal diseases occur in stages and can leads to loss of teeth if not treated and stopped at right time and in early stage and also due to improper bloodletting.

Dantamoolgata Rogas also can be understand as stages wise occurrence. Ayurveda do believe in prevention of the diseases in which especially Raktamokshana should be used in Dantamoolagata Rogas to treat them and prevent further worsening of the disease.

**DOSHA PRAKOPA (VITIATION OF DOSHA)** – Rakta (blood)

### DISCUSSION:

Here *Mukhaoga Nidanas* (Causative factor for orodental diseases) explained by *Acharya vaghbhatta*, there are very few *Nidana* explained by *Yog Ratnakar* and *Bhav Prakasha*. it is easy for a layman to know what the mistakes he is doing in his routine life style by understanding this so that he/she can make changes. only following these causative factors will not lead any diseases directly, it starts from prodromal symptoms first, then disease. If the overhead said *Nidana* is followed one time or two times may not lead to disease phase but if any of the upstairs said *Nidana* is practiced for longer duration and excessively will finally lead to diseases. If the person is following the same lifestyle and they do not change it, they will have a disease related to that particular practice and if it is not corrected, then recurrence of disease seems to be common.

In *Samhita*<sup>xix</sup> it is mentioned that *Nidana parivarjana* (Avoidance of causative factor) is itself *Chikitsa*. By detailing above *Nidana*, we can say that majority of *Nidana* increase *Kapha dosha* and vitiate *Rakta* (Blood). Some *Nidana* are directly correlated with oral hygiene (which are mentioned for *Dincharya*). Matsaya(Fish), Mahisha pishita (buffalo meat), Varaha pishita (Pork meat), Aam mulakam(Reddish), Masa soopa (Black gram), Dadhi(Curd), Kshira(Milk), Shukta (Alcoholic preparation), Ikshurasa (Sugarcan juice), Phanita(Jaggary) are *nidana* which cause *dosha prakopa* after long period of time.

## CONCLUSION:

In *Ayurveda*, different *Mukharoga* are described manifesting at all these parts and

many of the *Acharya* have devoted separate chapters for them. *Acharya* have described treatment of the *Mukharoga* as well preventive measures of *Mukharoga* like Kavala (Gargles), *Gandusha* (mouth wash), *Dantadhavana* (Tooth brushing), *Mukhaprakshalana* (Face wash) etc. in *Dincharya*. This shows the importance given to oral health during those eras. Even now, it is rightly said that oral health is equal to overall health. In modern life, however due to lack of time and negligence Oral hygiene become causative factor for oral disease. Hence it is concluded that there is main role of *Ahara Vihar* which mainly vitiate *Kapha* and *Rakta* (Blood) which became causative factor for *Mukharoga*, And *Parivarjan* (Avoidance) of *Nidana* is itself *chikitsa*.

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- <sup>xv</sup> Sushruta Samhita Agharya Sushruta Ayurveda Tatwa Sandeepika Hindi Vyakhaya, Uttaradha Edited by Ambikadatta Shastry, 11 Edited Choukamba Samskrut Samsthana, Varanasi, 1997 chikitsa sthana chapter 40 sloka no 15-16
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- <sup>xviii</sup> Sushruta Samhita Agharya Sushruta Ayurveda Tatwa Sandeepika Hindi Vyakhaya, Uttaradha Edited by Ambikadatta Shastry, 11 Edited Choukamba Samskrut Samsthana, Varanasi, 1997 sharira sthana chapter 8 sloka no 24
- <sup>xix</sup> Charak Samhita. Edited by Jadavaji Trikamji Aacharya. 1st ed. Varanasi: Krishnadas Academy;2000, Choukamba Samskrut Samsthana, Varanasi, vimana sthana chapter 7 sloka no 15