



## PRATIMARSHA NASYA: AN AYURVEDIC MODALITY

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### ABSTRACT

In present scenario there are so many disorders which don't have permanent cure with modern remedies. *Ayurveda* provides many great tools to deal with these diseases. Especially when the disorder is related to upper portion of the body, than *nasya* could be the main treatment modality. The Acharyas said – **NASA HI SHIRASO DWARAM** Because *Nasa* is indirectly connected with the brain centers in the head. Perfect balance of oxygen levels in the body can be attained with *Nasya Karma*, thereby also clearing all the morbid *Doshas*. It contains different therapeutic forms of application like *Churna*, *Kalka* etc. according to *Rogibala* and *Rogabala*. It is also the Best method to eliminate and alleviate the vitiated *Doshas* of *Urdhwanga*, *Nasya* is the only procedure which can directly influence *Indriyas* and having better chance of absorption through blood vessels. *Kaphapurna Talu & Shira*, *Aruchi*, *Shirogaurava*, *Shoola*, *Pinasa*, *Ardhavabhedaka*, *Krimi*, *Pratishyaya*, *Apasmara*, *Gandhagyananasha* and *Urdhvajatrugata Kapharogas* are some *rogas* which could easily treated by *nasya*. *Nasya Karma* may be given for seven consecutive days. In conditions like *Vata dosha* in head, hiccough, torticolitis, loss of voice etc. it may be done twice a day (in morning and evening).

**KEYWORDS:** *Nasa*, *Shira*, *Nasya* and *Pratimarsha-Nasya*.

### INTRODUCTION

The Acharyas said – **NASA HI SHIRASO DWARAM** Because *Nasa* is indirectly connected with the brain centers in the head. Perfect balance of oxygen levels in the body can be attained with *Nasya Karma*, thereby also clearing all the morbid *Doshas*.

*Nasa* has been considered as the gateway of *Shirah*. And to uproot the deep seated morbid *Doshas* *Nasya* therapy has been recommended by almost all the Acharyas.

The importance of knowing the manifestation of a disease at every level in controlling the disease was deeply known by Acharyas since old time. As rightly quoted-

*Urdhvajatrugata Rogas* and their management have a special place in *Ayurveda*. *Shirah* being the prime seat of knowledge and also the prime controller of the entire body has been termed as *Uttamanga*. Hence, the diseases occurring in the *Urdhvajatra* have been very clearly

highlighted in the *Ayurvedic* classics alongwith their management. *Nasa* is considered to be that *Indriya*, whose functions are not only limited to respiration but is also considered as a pathway for drug administration. In *Ayurveda*, special procedure called *Nasya* has been mentioned.

### Synonyms

*Shirovirechana*, *Shirovireka*, *Murdhavirechana*, *Navana* and *Nastahkarma* are the synonyms of *Nasya Karma*. *Sushruta* has specified the word *Shirovirechana* to describe a particular variety of *Nasyakarma*.<sup>[1]</sup>

*Acharyas Charaka* has used the term “*Nastah Pracchardana*” for *Nasya*,<sup>[2]</sup> which denotes *Shodhana* done by *Nasya*.

- Best method to eliminate and alleviate the vitiated *Doshas* of *Urdhwanga*.
- Different therapeutic forms of application like *Churna*, *Kalka* etc. according to *Rogibala* and *Rogabala*.

- Only procedure which can directly influence *Indriyas*.
- Better chance of absorption through blood vessels.
- Wide range of application.

### **Classification of Nasya**

#### **Charaka's Classification of Nasya**

According to *Charaka* the *Nasya* is of five types viz. *Navana*, *Avapida*, *Dhmapana*, *Dhuma* and *Pratimarasa*.<sup>[3]</sup>

*Navana* is further divided in to *Snehana* and *Shodhana*, *Avapidana* into *Shodhana* and *Stambhana*, *Dhuma* into *Prayogika*, *Vairechanika* and *Snahika* while *Pratimarsha* is divided into *Snehana* and *Shodhana*. The above mentioned, five types of *Nasya* are regrouped according to their function into three groups viz. – *Rechana*, *Tarpana* and *Shamana*. *Charaka* has also mentioned 7 types of *Nasya* according to parts of the drugs to be used in *Nasyakarmna* via – *Phala*, *Patra*, *Mula*, *Kanda*, *Pushpa*, *Niryasa*, *Twaka*.<sup>[4]</sup>

#### **Classification of Nasya according to Sushruta<sup>[5]</sup>**

According to *Sushruta Nasya* is also of 5 types Viz. *Nasya*, *Avapida*, *Pradhamana*, *Shirovirechana* and *Pratimarsha*. These 5 types of *Nasya* are further classified according to their functions into two groups viz. *Shirovirechana* and *Snehana*.

*Shirovirechana*, *Avapida* and *Pradhamana* are used for *Shirovirechana*. i.e. for the elimination of morbid *doshas* from *Shirah*. *Pratimarsha* and *Nasya* type may be used for *Snehana*.

#### **Vaghbhata's Classification of Nasya<sup>[6]</sup>**

*Ashtanga Sangraha* has mainly classified *Nasya* according to the functions viz. *Virechana*, *Brimhana* and *Shamana*. *Snehana* and *Brimhana Nasya* have been further subdivided according to the doses into two groups i.e. *Marsha* and *Pratimarsha*.

*Avapidanasya* may be given for both *Virechana* and *Shamana* while *Pradhamana Nasya* is given only for *Shirovirechana*. *Ashtanga Hridaya* has mainly classified *Nasya* in 3 types viz. *Rechana*, *Brimhana* and *Shamana*.

#### **Kashyapa's Classification of Nasya<sup>[7(A,B)]</sup>**

According to *Kashyapa Samhita Nasya* has been classified into two groups i.e. *Brimhana* and *Karshana*. These two types are also known as (1) *Shodhana* and (2) *Purana Nasya*.

#### **Sharangdhara's Classification of Nasya**

*Sharangdhara* has also classified *Nasya* according to the functions into two groups viz. *Rechana* and *Snehana*. *Rechana Nasya* is further subdivided into *Avapida* and *Pradhamana*. *Snehana Nasya* is subdivided into *Marsha* and *Pratimarsha*.

#### **Marsha – Pratimarsha Nasya**

*Marsha* and *Pratimarsha* both consist of introduction of oils through the nostrils. It is well tolerated and is very much convenient procedure. *Pratimarsha* and *Marsha* are same in principle, but the main difference between them is of dose. In *Pratimarsha Nasya* 1-2 drops are given while in *Marsha Nasya* the dose is 6 to 10 drops.

#### **• Marsha**

According to *Vaghbhata* dropping 6 to 10 drops of *Sneha* in the nostrils is known as *Marsha*. According to *Vaghbhata Marsha Nasya* gives more side effects (*Vyapada*) but again he suggested that it gives quick result and it is more effective than *Pratimarsha Nasya*.<sup>[8]</sup>

#### **• Pratimarsha Nasya<sup>[9(A,B,C)]</sup>**

*Pratimarsha Nasya* can be given daily and even in all the seasons at morning and evening. It is given by dipping the finger in the required *Sneha* then dropping it in each nostril. The patient should be advised not to sniff the *Sneha* given in the form of *Nasya*.

#### **1. Dose**

2 drop in the morning and evening.

The *Sneha* should atleast reach from nose to gullet, but it should not be too much that to produce secretion in gullet.

#### **2. Indications**

*Pratimarsha* can be given in any age, any season and even in *Akala*. i.e in *Varsha* and *Durdina*. It can be given to *Bala*, *Vridhdha*, *Bhiru*, *Sukumara* and weak patients and also to the patients of *Kshataksheena*, *Trishna Pidita*, *Mukhashosha*, *Valita* and *Palita*.

#### **3. Contraindications**

It is contraindicated in *Dushta Pratishyaya*, *Bahudosha* and *Krimija Shiroroga* and also in *Madhyapi* (drunkers-habitual), *Badhirya* (deafness) and the persons having *Utklishta doshas*.<sup>[10]</sup> It should not be given to them because (as *Sneha Matra* is quite insufficient to eliminate *doshas* and already aggravated *doshas* may get vitiated further.

#### **4. Kala**

*Sushruta* and *Sharangdhara* have described 14 suitable times for *Pratimarsha Nasya*, while *Vaghbhata* has mentioned 15 *Kala*.

**Table No. 1:** (*Kala of Pratimarsha nasya*).

Time for Pratimarsha Nasya	Sushruta	Ashtanga	Sharangdhara
After leaving the bed in morning	+	+	+
After cleaning the teeth (with Dantadhavana)	+	+	+
Before going outside	+	-	+
After exercise	+	+	+
After sexual	+	+	+
After walking	+	+	+
After urination	+	+	+
After passing Apanavayu	+	-	-
After Kavala	+	+	+
After Anjana	+	+	+
After meal	+	+	+
After sneezing	+	-	-
After sleeping in the noon	+	+	+
In the evening	+	+	+
After vomiting	-	+	+
After Shirobhyaṅga	-	+	-
After defaecation	-	+	+
After laughing	-	+	-

### **Administration of Nasya**

The procedure of giving *Nasya* therapy may be classified into the following three headings:

1. *Purvakarma* (Pre-measures)
2. *Pradhanakarma* (Nasya therapy)
3. *Paschatkarma* (Post measures)

#### **1) Purvakarma**

Before giving *Nasya*, prior arrangement of the material and equipments should be done. There should be a special room “*Nasya Bhavana*” free from direct blow of air and dust and lighted appropriately<sup>[11]</sup> in it the following articles should be collected.

- i. ***Nasya Asana*** -
    - a. A chair for sitting purpose.
    - b. A cot for lying purpose.
  - ii. ***Nasya Aushadhi*** – Drugs required for induction and management of Shirovirechana should be collected in the form of *Kalka*, *Churna*, *Kvatha*, *Kshira*, *Udaka*, *Sneha*, *Asava*, *Dhumra* etc. in sufficient quantity.
  - iii. ***Nasya Yantra*** - For *Snehana*, *Avapida*, *Marsha* and *Pratimarsha Nasya*, there should be a dropper or *Pichu*. For *Pradhamana Nasya* *Shadangula Nadi* and specific *Dhumayantra* for *Dhum Nasya* are required. Besides this one needs efficient assistant, dressing material, spitting pots, bowl, napkins and towels also.
- ✓ **Selection of the patient:** The patient should be selected according to the indications and contraindications of *Nasya* described in classics.
  - ✓ **Preparation of patient:** According to *Sushruta*'s description following regimens are given to the patient to prepare him for *Nasya Karma*.

Diet should be given to the patient who has passed his natural urges like urine, stool etc. After some time brushing of teeth (and other routine daily activities like bath, prayer, light breakfast (not feel hungry) etc.) should be done. Now the patient gets ready for *Nasya karma*. He should lie down on *Nasya Shayya*. Before *Nasya*, *Mridu Abhyanga* (massage) should be done on scalp, forehead, face and neck for 3 to 5 minutes by medicated oil like *Bala Taila*, *Panchaguna Taila* etc.

- ✓ *Snehapana* should not be given immediately before *Nasyakarma*.<sup>[12]</sup>
- ✓ According to Ayurvedic texts *Svedana* should not be given to the head. *Mrudu Svedana* may be given for elimination of doshas and liquification of doshas. *Tapa sveda* may be given on *Shira*, *Mukha*, *Nasa*, *Manya*, *Griva* and *Kantha* region. Cloth dipped in hot water may be useful for *Mrudu Sveda*.
- ✓ After *Svedana* smooth massage should be applied on regions of *Gala*, *Kapola* and *Lalata*.

- 2) ***Pradhana Karma:*** As described by *Charaka*,<sup>[13]</sup> *Vagbhata*<sup>[14]</sup> and *Sushruta*,<sup>[15]</sup> the following procedure should be adopted for performing the *Nasya Karma*.

The patient should lie down in supine position with ease on *Nasya Shayya*. *Shira* (head) should be “*Pralambita*” (lowered i.e. hanging down) and foot part is to be slightly raised. Head should not be excessively flexed or extended. If the head is not lowered, the nasal medication may not reach to the desired distinction and if it is lowered too much, there may be the danger of getting the medication to be lodged in brain. After covering the eyes with clean cotton cloth, the physician should raise the tip of the patient's nose with his left thumb and with the right hand the luke warm medicine (*Sukhoshna* drug) should be dropped in both the nostrils in proper way.<sup>[16]</sup>

The drug should be neither less nor more in the dose i.e. it should be in the proper quantity. It should also be neither be very hot nor very cold i.e. it should be luke warm. The patient should remain relaxed while taking *Nasya*. He should avoid speech, anger, sneezing, laughing and head shaking during *Nasya Karma*.

**3) Paschat Karma:** As described by *Charaka*,<sup>[17]</sup> *Ashtanga Hridaya*<sup>[18]</sup> and *Sushruta*<sup>[19]</sup> following regimen should be followed:

After administration of medication through nasal passage patient should lie supine (*Uttana*) for about 2 minute time interval which is consumable for counting numbers upto 100. After administration of *Nasya* feets, shoulders, palms and ears should be massaged.<sup>[20]</sup> The head, cheek and neck should be again subjected to sudation.

The patient should avoid swallowing of *Nasya Aaushadhi*. The oil that has been dropped in the nose may be repeatedly drained out together with the morbid *doshas*, specialy mucous; should be expelled by the patient by sneezing slowly and care should be taken that no portion of the medicated oil is left behind. Patient should spit out the excessive medicine, which has come into the oropharynx. Medicated *Dhumapana* and *Gandusha* are advocated to expel out the residue mucous lodged in gullet (*Kantha*) and *Shringataka*. Patient should stay at windless place. Light meal (*Laghu Aahara*) and luke warm water (*Sukhoshna Jala*) is allowed. Avoid dust, smoke, sunshine, alcohol, hot bath, riding, anger, excess fat and liquid diet. Day sleeping and cold water for any purpose like *Pana*, *Snana* etc. should be avoided after *Nasya Karma*.

#### **Vyapada (Complications)**

The patients after taking the *Nasyakarma* if does not follow the regimen given above then the *Prakopa* of *Dosha* may again occur leading to many complications which may be known as *Vyapada*.<sup>[21]</sup>

Many complications of *Nasya Karma* may occur due to Administration of *Nasya* when it is contraindicated and due to technical failure. These complications occur through following two modes. (a) *Doshotklesh*, which can be managed by *Shodhana* and *Shamana Chikitsa* (b) *Dosha Kshaya*, which has to be managed by *Brimhana Chikitsa*.<sup>[22]</sup>

If *Nasya* is given in the contraindicated conditions like *Ajirna*, *Bhuktabhakta*, *Jalapita* etc. or in season or time where *Nasyakarma* is contraindicated e.g. cloudy atmosphere, then there is possibility of production of *Kapha Rogas* like asthma, cough, sinusitis and indigestion etc. In such conditions, the treatment should be done with *Kapha-nashaka Upachara* like use of *Ushna* and *Tikshna Aushadha* and *Karma*.

If *Nasya* is given in *Krishasharira* (emaciated), *Virikta* (patient who had taken *Virechana*), *Aatura* (anxious),

*Garbhini* (pregnant lady), *Vyayama Klanta* (exhausted with exercise) and in thirsty person then vitiation of *Vata* takes place and may lead to *Vataja Vikara*.

In all the above conditions, *Vatanashaka* procedures like *Snehana*, *Brimhana* and *Svedana* should be done. The pregnant lady should specifically be treated with the use of *Ghrita* and *Milk*.

The conditions like fever, *Shokabhitapta* and in *Madhyapita*, if *Nasya* is performed then *Timir-roga* may be produced. *Ruksha*, *Sheeta Anjana*, *Lepa* and *Putapaka* should be applied for the treatment of these conditions.

For *Nasya* if the drug used is very hot or cold or given in less or in excess quantity or during administration of *Nasya* the patient has lowered his head more or sneezed or *Nasya* is given during the time when it is contraindicated then it may lead to the complications like *Trishna* and *Udgara*.

If the patient faints at the time of *Nasya*, he should be treated with pouring of cold water on *Lalata* and *Mukhapradesha*.

#### **Mode of action of Nasya Karma**

The clear description regarding the mode of action of the *Nasya Karma* is not available in *Ayurvedic* classics. According to *Charaka*, *Nasa* is the portal (gate way) of *Shirah*.<sup>[23]</sup> The drug administered through nose as *Nasya* reaches to the brain and eliminates only the morbid *doshas* responsible for producing the disease. In *Ashtanga Samgraha* it is explained that *Nasa* being the door way to *Shira* (heard), the drug administered through nostrils, reaches *Shringataka* (a *Sira Marma* by *Nasa* *Srota* and spreads in the *Murdha* (Brain)) taking route of *Netra* (eye), *Shrotra* (ear), *Kantha* (throat), *Siramukhas* (opening of the vessels) etc. and scratches the morbid *doshas* in supra clavicular region and extracts them from the *Uttamanga*.

*Sushruta* has clarified *Shringataka Marma* as a *Sira Marma* formed by the union of *Siras* (blood vessels) supplying to nose, ear, eye and tongue. It has been further pointed out that injury to this *Marma* may be fatal immediately.<sup>[24]</sup> Commentator *Indu* of *Ashtanga Samgraha* opined *Shringataka* as the inner side of middle part of the head i.e. *Shiraso Antarmadhyam*.

Under the complications of *Nasya Karma* *Sushruta* noted that the excessive eliminative errhine might cause *Mastulunga* (cerebro spinal fluid) to flow out to the nose.

According to all *Acharyas* *Nasa* is said to be the portal of *Shira*. It does not mean that any anatomical channel connects directly to the brain but it might be connected pharmacodynamically through blood vessels or through nervous system (olfactory nerve etc.).

It is an experimentally proved fact that where any type of irritation takes place in any part of the body, the local blood circulation is always increased. This is the result of natural protection function of the body. Something happens when provocation of *Doshas* takes place in *Shirah* due to irritating effect of administered drug resulting in an increase of the blood circulation of brain. So extra accumulated morbid *doshas* are expelled out from small blood vessels and ultimately these morbid *doshas* are thrown out by the nasal discharge, tears and by salivation.

## CONCLUSION

*Nasya Karma* as per the opinion of Ayurvedic texts, is not only the treatment of the disease but, many types of *Nasya Yoga* described in *Ayurveda* is for the maintenance of healthy life "**SWATHASYA SWASTHYA RAKSHANAM**". The efficacy of *Nasya karma* mentioned in *Ayurveda* classics thousands of years ago can be demonstrated even in the present era with the help of modern scientific parameters. The different forms of *nasya* e.g. *churna*, *sneha*, *kvatha* etc. acts through diverse mechanisms i.e. vascular and neural, in the body. The physiological conditions of the nose and also physicochemical properties of drugs are responsible for nasal drug absorption. Standardization of the *Nasya karma* with *Ayurveda* and Modern scientific parlance is the need of the hour, and then only we would be able to do proper justification to this unique and noble treatment.

## REFERENCE

1. AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Chikitsasthana, Reprint edition; 2014, chapter 40 versus 21, Varanasi: Chaukhamba Sanskrit Sansthana, 2014, P. 224.
2. Pt.Kashinathshastri and Dr.Gorakha nath chaturvedi, Charaka Samhita of charaka with Vidyotini Hindi Commentary, Sutrasthana Reprint edition; 2013 chapter 1 versus 85 Varanasi: Chaukhamba bharati academy, 2013, P.43.
3. Pt.Kashinathshastri and Dr.Gorakha nath chaturvedi, Charaka Samhita of charaka with Vidyotini Hindi Commentary, Siddhisthana Reprint edition; 2013 chapter 9 versus 89-92 Varanasi: Chaukhamba bharati academy, 2013, P.1070.
4. Pt.Kashinathshastri and Dr.Gorakha nath chaturvedi, Charaka Samhita of charaka with Vidyotini Hindi Commentary, Vimanasthana Reprint edition; 2013 chapter 8 versus 151 Varanasi: Chaukhamba bharati academy, 2013, P.794.
5. AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Chikitsasthana, Reprint edition; 2014, chapter 40 versus 21, Varanasi: Chaukhamba Sanskrit Sansthana, 2014, P. 224.
6. Atrideva gupt, Ashtanga hridaya of Vaghbhatta with Vidyotini Hindi Commentary, Sutrasthana, Reprint Edition, 2007 chapter 20 versus 2, Varanasi: Chaukhambha Prakashan, 2007, P.343.
7. (A) Shree Satyapala Bhishagacharya, Kashyapa Samhita of Vraddhajeekava with Vidyotini Hindi Commentary, Siddhisthana, Reprint Edition, 2012 chapter 2 versus 19, Varanasi: Chaukhambha Prakashan, 2012, P.151.  
(B) Shree Satyapala Bhishagacharya, Kashyapa Samhita of Vraddhajeekava with Vidyotini Hindi Commentary, Siddhisthana, Reprint Edition, 2012 chapter 4 versus 2, Varanasi: Chaukhambha Prakashan, 2012, P.159.
8. Atrideva gupt, Ashtanga hridaya of Vaghbhatta with Vidyotini Hindi Commentary, Sutrasthana, Reprint Edition, 2007 chapter 20 versus 24, Varanasi: Chaukhambha Prakashan, 2007, P.351.
9. (A) AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Chikitsasthana, Reprint edition; 2014, chapter 40 versus 51, Varanasi: Chaukhambha Sanskrit Sansthana, 2014, P. 228. (B) AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Chikitsasthana, Reprint edition; 2014, chapter 40 versus 52, Varanasi: Chaukhambha Sanskrit Sansthana, 2014, P. 228.  
(C) AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Chikitsasthana, Reprint edition; 2014, chapter 40 versus 53, Varanasi: Chaukhambha Sanskrit Sansthana, 2014, P. 229.
10. Atrideva gupt, Ashtanga hridaya of Vaghbhatta with Vidyotini Hindi Commentary, Sutrasthana, Reprint Edition, 2007 chapter 20 versus 26-28, Varanasi: Chaukhambha Prakashan, 2007, P.352.
11. AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Chikitsasthana, Reprint edition; 2014, chapter 40 versus 25, Varanasi: Chaukhambha Sanskrit Sansthana, 2014, P. 225.
12. Atrideva gupt, Ashtanga Hridaya of Vaghbhatta with Vidyotini Hindi Commentary, Sutrasthana, Reprint Edition, 2007 chapter 20 versus 21, Varanasi: Chaukhambha Prakashan, 2007, P.350.
13. Pt.Kashinathshastri and Dr.Gorakha nath chaturvedi, Charaka Samhita of charaka with Vidyotini Hindi Commentary, Siddhisthana Reprint edition; 2013 chapter 9 versus 104 Varanasi: Chaukhambha bharati academy, 2013, P.1073.
14. Atrideva gupt, Ashtanga hridaya of Vaghbhatta with Vidyotini Hindi Commentary, Sutrasthana, Reprint Edition, 2007 chapter 20 versus 18-20, Varanasi: Chaukhambha Prakashan, 2007, P.349.
15. AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Chikitsasthana, Reprint edition; 2014, chapter 40 versus 26-27, Varanasi: Chaukhambha Sanskrit Sansthana, 2014, P. 225-226.
16. Pt.Kashinathshastri and Dr.Gorakha nath chaturvedi, Charaka Samhita of charaka with Vidyotini Hindi

- Commentary, Siddhisthana Reprint edition; 2013 chapter 9 versus 92-102 Varanasi: Chaukhambha bharati academy, 2013; P.1072.
- 17. Pt.Kashinathshastri and Dr.Gorakha nath chaturvedi, Charaka Samhita of charaka with Vidyotini Hindi Commentary, Siddhisthana Reprint edition; 2013 chapter 9 versus 108 Varanasi: Chaukhambha bharati academy, 2013; P.1073.
  - 18. Atrideva gupt, Ashtanga hridaya of Vagbhata with Vidyotini Hindi Commentary, Sutrasthana, Reprint Edition, 2007 chapter 20 versus 22, Varanasi: Chaukhambha Prakashan, 2007; P.350.
  - 19. AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Chikitsasthana, Reprint edition; 2014, chapter 40 versus 21, Varanasi: Chaukhambha Sanskrit Sansthana, 2014; P. 224.
  - 20. Atrideva gupt, Ashtanga hridaya of Vagbhata with Vidyotini Hindi Commentary, Sutrasthana, Reprint Edition, 2007 chapter 20 versus 20-22, Varanasi: Chaukhambha Prakashan, 2007; P.350.
  - 21. Pt.Kashinathshastri and Dr.Gorakha nath chaturvedi, Charaka Samhita of charaka with Vidyotini Hindi Commentary, Siddhisthana Reprint edition; 2013 chapter 9 versus 109-110 Varanasi: Chaukhambha bharati academy, 2013; P.1074.
  - 22. AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Chikitsasthana, Reprint edition; 2014, chapter 40 versus 49-50, Varanasi: Chaukhambha Sanskrit Sansthana, 2014; P. 228.
  - 23. Pt.Kashinathshastri and Dr.Gorakha nath chaturvedi, Charaka Samhita of charaka with Vidyotini Hindi Commentary, Siddhisthana Reprint edition; 2013 chapter 2 versus 22 Varanasi: Chaukhambha bharati academy, 2013; P.986.
  - 24. AmbikadattShastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Shareerasthana, Reprint edition; 2014, chapter 6 versus 28, Varanasi: Chaukhambha Sanskrit Sansthana, 2014; P. 75.