



Conceptual Study on the Role of *Virecana Karma* in Management of *Tamaka Shwasa*

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ABSTRACT

Tamaka Shwasa is one of the five types of *Shvasaroga*. *Tamaka Shwasa* is a “Swantartra” *Vyadhi* having its own etiology, pathogenesis and management. The cardinal symptoms of *Tamaka Shwasa* includes *Shvasa Krichhrata (dyspnoea)*¹, *Kasa (cough)*, *Pinasa (rhinitis)*, *Ghurghurukam*, *Parshvashula*. According to *Ayurveda Shvasaroga* is a *Kapha Vata Pradhana* disease which originated from *Pittasthana*. Whenever there is obstruction of *Pranavayu* by *Kapha Dosha*, the vitiated *Vayu* gets *Pratiloma Gati (reverse movement)* to produce *Shvasa Roga*. Asthma is the chronic inflammatory disorder of the airway associated with increased hyper responsiveness, recurrent episode of wheezing shortness of breath, chest tightness and coughing particularly at night and early morning. The global prevalence of asthma is more than 300 million individuals and about a tenth of those are living in India. *Acharaya Charaka* and *Vagbhata* have described *Virechana Karma* in the management of *Shvasa Roga*. In *Tamaka Shwasa*, *Kapha* obstructs the passage of *Vayu*, the obstructed *Vayu* take the *Pratiloma Gati*. *Virecana* drugs having the quality of *Vatanulomana*, *Usnaguna*, *Kaphavataghna* property may be more beneficial in the condition of *Shvasa*. *Virecana* removes mainly *Kapha* and *Pitta Dosha* and makes *Vata* in *Anuloma Gati*. Thus this conceptual study was undertaken to study the concepts of *Tamaka Shwasa* and role of *Virechana Karma* in *Tamaka Shwasa*.

Key Words: *Tamaka Shwasa*, *Shvasa*, *Virechana*, *Karma*, *Kapha Dosha*.

INTRODUCTION

Tamaka Shwasa is mentioned as one of the variety among five types of *Shvasa*. Among them *Kshudra Shwasa* is present as symptom in most of the diseases & it does not require any medication whereas *Maha Shwasa*, *Urdhva Shwasa* & *Chinna Shwasa* are present in the terminal stages of various diseases. *Tamaka Shwasa* is a 'Swantartra' *Vyadhi* & having its own etiology, pathogenesis & management. It is mentioned as *Yaapya Vyadhi* i.e. chronic in nature having cardinal symptoms like *Shvasakrichhrata*¹, *Ghurghurukam*, *Pinasa*, *Kasa*, *Parshvashula*. According to *Ayurveda Shvasa roga*² is a *Kapha Vataja* disease which is originated from *Pittasthana*. Whenever there is obstruction of *Pranavayu* by *Kapha Dosha*, the vitiated *Vayu* gets *Pratilomagati (reverse movement)* to produce *Shvasa Roga*. Asthma is defined as a chronic inflammatory disorder of the airways in which many cells play a role in particular mast cells, eosinophils & Tlymphocytes³. The susceptible individuals experience the recurrent episodes of wheezing, breathlessness, chest tightness & cough particularly at night or in the early morning, due to this inflammation. These symptoms are usually associated with wide spread but variable air flow limitation that is at least partly

reversible either spontaneously or with treatment. To a variety of stimuli, the associated airways responsiveness is increased due to inflammation. The burden of asthma is immense, with more than 300 million individuals currently suffering from asthma worldwide, about a tenth of those living in India. The prevalence of asthma has been estimated to range 3-38% in children and 2-12% in adults.⁴ *Shodhana* is given a due importance in *Tamaka Shvasa*. Among *Shodhana*, *Vamana* & *Virechana* are indicated in *Tamaka Shvasa*. *Tamaka Shvasa* is manifested by aggravated *Prana Vayu* due to obstruction of *Kapha*. *Virechana Karma* with drugs having *Vata Kaphahara* property is indicated in the management *Tamaka Shvasa*.

AIMS AND OBJECTIVES

1. To study in details about *Tamaka Shvasa*.
2. To study the role of *Virechana Karma* in *Tamaka Shvasa*.
3. To study the role of *Virechana Karma* in cardinal signs of *Tamaka Shvasa*.

MATERIALS & METHODS

- Different references regarding *Tamaka Shvasa* and *Virechana Karma* were collected from *Bruhatrayi*, *Laghutrayi*, various textbooks and previous studies and compilation done.
- Concept of *Tamaka Shvasa* and *Virechana Karma* in *Tamaka Shvasa* was studied.
- Collection of all the references was done and correlation between the data was done logically i.e by using *Yukti Pramana* (Logical inferences).

DISEASE REVIEW

Nidana (Etiology)

According to *Acharaya Charaka*, "A single etiological factor may produce a single disease or many factors together may produce single disease and "vice versa"⁵. This holds true in *Tamaka Shvasa* as one or more etiological factors are responsible in production of *Tamaka Shvasa*. In *Ayurveda* texts *Nidanas* of *Tamaka Shvasa* are not described separately, but the *Nidana* of *Shvasaroga* in general are given. Multi factorial causes are responsible for development of *Tamaka Shvasa*. *Nidana* of *Tamaka Shvasa* can be categorized mainly of two types: 1. *Bahya* (Extrinsic) – like *Dhuma*, *Raja*, *Vata*, etc. 2. *Ahyanatra* (Intrinsic) – *Kapha* & *Vata Dosha* vitiation. The *Bahya Nidana* acts through following three factors: *Asatmendriyartha Samyoga*, *Prajnaparadha*, *Parinama*. For *Shvasa Roga* to occur, *Asatmendriyartha Samyoga* plays important role. Mainly *Ghranendriya*, *Sparsanendriya* and *Rasanendriya* and their *Asatmyaartha Samyoga* may precipitate *Tamaka Shvasa*. For example exposure of the *Ghranendriya* to pollens, dusts etc. may evoke an *Asatmyaindriya Artha Samyoga*. *Prajnaparadha* is a conscious or unconscious indulgence in harmful activities. It is again of two types. A. *Saririkaprajnaparadha*, eg. Excessive indulgence in sex, excessive working and other similar activities. B. *Manasika Prajnaparadha* are fear, sorrow, anger, greed, anxiety, excitement, pride etc. *Parinama* means *Kala* i.e. the effect of climatic condition. This is observed that paroxysmal attacks of *Shvasaroga* occur during specific times and seasons, such as, cloudy climates, winter, rainy season and at nights. Sometimes, *Nidanarthakara Rogas* are also important factor, i.e *Tamaka Shvasa* can be produced secondarily to some disease eg. *Jwara*, *Kasa*, *Pandu*, etc. *Acharaya Vagbhata* has clearly mentioned that the neglected cases of *Kasa* may lead to *Shvasa*.

As already stated before, the etiology of *Shvasa* may also be considered as the etiology of *Tamaka Shvasa*. And these etiological factors have been divided according to *Ahara*, *Vihara* and *Nidanarthakara Roga*. *Ahara Nidana* are *Visamasana* (irregular diet), *Sitasana* (cold food), *Ruksana* (fat free diet), *Anasana* (fast), *Vistambhibhojana* (slowly digested food), *Adhyasana* (frequent meals), *Visa Sevana* (toxins), *Sitaambu* (cold water) *Dvandvalayoga* (mutually antagonistic). *Kapha Prapokapaahara* like *Masa* (black gram), *Nispava* (beans), *Pistabhojan* (paste preparation), *Pinyaka* (tila paste) *Anupapisita*, *Jalaja Mamsa* (aquatic fish)

,*Guru Bhojan* (heavy diet) , *AmaKshira* (unboiled milk) , *Dadhi* (curd), *Abhisyandi Anna*, *Tila Taila*, *Slesmala Dravya*, *Saluka* (lotus rhizome), *Suddhiatiyoga* (excessive purification), *Kantapratighata* (throat trauma), *Urahpratighata* (chest trauma). Regarding *Nidana* related to *Vihara* , *Vataprakopaka Vihara* includes *Vata* (wind), *Rajas* (Dust) , *Dhuma* (Smoke), *Vyayama* (exercise), *Sita Sthana Sevana* (to reside in cold place) , *Sitaambu* (Cold Water), *Gramyasevana* (over indulgence in sex) , *Atyapatarpana* (malnutrition), *Bharavahan* (excessive weight lifting), *Marmaghata* (trauma over vital organ), *Vega Vidharana* (suppression of urges), *Suddhiatiyoga* (excessive purification), *Urahpratighata* (chest trauma), *Kantapratighata* (throat trauma), *Jagarana*, *Karmahata* (exhausted). While *Kaphaprakopaka Vihara* includes *Divaswapna* (day sleep) and *Abhisyandyupacaras*. *Ayurveda* also advocates about the *Nidanarthakara Roga*⁶ like *Amapradosa*, *Apatarpana*, *Vibandha* (constipation), *Anaha* (distension of abdomen) , *Dhatuksaya* (emaciation) , *Pratisyaya* (coryza), *Chardi* (vomiting), *Jwara* (fever), *Atisara* (diarrhoea), *Daurbalya* (weakness), *Urahksata* (Trauma in chest), *Alasaka* (food materials remain undigested), *Pandu roga* (anaemia), *Udavarta* (reverse motion of natural urges), *Visucika* (Acute gastro enteritis), *Raktapitta*, *Kasa* (cough), as important causative factors for *Tamaka Shvasa*. *Vyanjaka Hetu* is stimulating, precipitating or aggravating cause. It is due to *Vyanjaka Hetu* that the aggravation of symptoms occurs in an already generated disease or these cause the precipitation of the *samprapti* (pathogenesis) of a disease. The prior knowledge of these *Hetu* are useful in preventing the actual formation of diseases by preventing such factors. This includes *Sleshma Vardhaka* things (*Kapha* increasing matters), *Ambu* (water), *Seeta* (cold), *Megha* (clouds).

Purvarupa (Prodromal Symptoms)

The *Purvarupa*⁷ mentioned by *Acharyas* in *Brihat Trayi*⁸ and in *Madhava Nidhana* are *Adhmana* (flatulence), *Bhaktadvesa* (aversion to food), *Arati* (restlessness), *Vairasya* (bad taste in mouth), *Hridpeeda* (pericardial pain), *Parsvasula* (pain in the side of chest), *Pratilomatva* (Short and shallow breathing), *Anaha*⁹, *Sankhabheda* (pin pricking sensation on temporal region) .

Rupas (Clinical Features/ Symptoms)

The important symptoms of *Tamaka Shvasa* which are helpful in diagnosis are as follows: *Ativativravega*¹⁰ *shvasa*, *Ghurghurkam*, *Kasa*, *Asinolabhatesaukhyam*, *Mhur-mhurshvasa*, *Lalatesweda*, *Meghambupragvatevridhi*. The various *Rupaas* described in *Brihatrayi* are *Griva-Parigraha Stambha* (stiffness of the Neck), *Siraha Parigraha-Stambha* (stiffness of the head), *Ghuraghurakam* (wheezing), *Ativativravega Pranapidaka Shvasa* (having sever bouts of dyspnoea), *Ativegata Pratamyati* (blackouts due to frequent bouts of dyspnoes), *Kasate Sanni Rudhyate-* (inactive due to coughing), *Kasa*, *Janya Pramoha* (fainting while coughing), *Slesmani Amuchuamana Bhrusham Dukhitaha* (inability to expectorate, he feels greatly distressed), *Slesmani Vimokshante Muhuratam Sukhum* (after expectoration gets temporary relief), *Kanthodhvansa* (pain in the throat), *Krichrat Bhasitam* (difficulty in speaking), *Anindra* (insomnia), *Asinolabhate Saukhyam* (comfort in lying), *Sayanaha Shvasa Peditaha* (aggravated in lying posture), *Parshva Shula* (lateral chest pain), *Ushnabhinandati* (desires hot things), *Uchhritaksaha* (eyes are elevated widely opened), *Lalate Sweda* (forehead sweating), *Bhrusumartiman* (severe pain), *Visuskasyata* (dryness of mouth), *Vamathu* (vomiting), *Meghachhanna Shwasa Vridhi* (aggravated by cloudy weather), *Ambuna Vridhi* (aggravated by rains), *Pragvataihi Vridhi* (aggravated by wind), *Sitakale Vridhi* (aggravated by cold weather), *Trut* (thirst), *Prasvedaha* (perspiration), *Abala* (weak), *Annadwasha* (aversion towards food) , *Vepathu* (tremor), *Mahataghosa Shvasa* (having loud sound), *Sakasa* (accompanied with cough), *Urah Pida* (chest pain) , *Bhakta Dwasha* (anorexia), *Aruchi* , *Moha* (fainting) , *Durdine Vridhi* (dyspnoea especially during cloudy weather).

Samprapti(Pathogenesis)

Describing *Samanya Samprapti* Acharya Charaka describes, Vitiated *Vata* enters The *Pranvaha Shrotas* and aggravates the *Urastha Kapha*. This *Vikruta Kapha* obstructs the normal flow of *Pranvayu* & produces five types of *Shvasa* & *Hikka* which en dangers the life. *Acharya Shushruta* explains that the *Prana Vayu* when leaves its normal physiological functions and when interacts with the *Kapha*¹¹it moves with *Pratiloma* gati and leads to development of *Shvasa* roga. Regarding specific pathogenesis *Acharya Charaka* explains that when *Kapha* obstructs the flow of *Prana Vayu*in the *Pranvaha Shrotas*, *Prana Vaya* moves in *Pratiloma Gati* and surrounds the neck and head and causes excess secretion of *Dusta Kapha* which results *Pinasa* (Coryza). Due to this excessive mucus discharge in *Pranvaha Shrotas*and there is obstruction of *Pranavayu* which produces characteristic sound *Ghurghurkam* (wheezing). This situation is aggravated when there is congestion, *Sotha* (inflammation) or irritation. This further increases the secretion in the tracts which causes coughing and patient tries to expel the thick, sticky sputum. If he or she is unable to expectorate than the respiration rate increases and constriction of air tracts occurs. As a result the expiration becomes prolonged and the inspiration shortens. This condition causes *Dyspnoea*. Thus the exchange of *Vishnupadamrutama* (oxygen) is not proper. Due to which results in other systemic symptoms like pain giddiness , dryness of mouth, desire for hot objects and disturbed sleep.

Chikitsa (Treatment)

Overall management of *Tamaka Shvasa* can be divided into: *Nidana Parivarjana* (avoiding etiology), *Shodhana* (bio-purification) , *Avastika Chikitsa* & *Shamanoushadhi* (oral medication). As *Samana* therapy the medicines and the dietetic regimen which controls the *Kapha* and *Vata* due to their *Ushna Guna* and are *Vata- Anulomaka* in action should be utilized in the treatment of *Shvasa Roga*. *Acharya Charaka* explains that the patient with *Kapha*¹²and *Vata* dominance and of strong build should be given *Samshodhana* therapy i.e. *Vamana* & *Virechana*. And according to *Acharya Vagbhata*, in *Balavana* (strong) and in *Kaphadhika* – *Karshana Chikitsa* should be done, while in *Durbala* (weak), *Bala* (child) *Brumhana Chikitsa*is recommended and in *Vridha*(old person) *Shamana Chikitsa* is advised.

VIRECHANA REVIEW

Sodhana Karma is prerequisite in managing the condition of *Tamaka Shvasa* , particularly in patients with sufficient strength, because the disease is manifested by the aggravated *Prana Vayu* by the obstruction of *Kapha*¹³. *Virecana Karma* is appropriate as the origin of the pathogenesis is said to be started from *Pittasthana*. And the aggravated *Kapha* and *Vata* are amenable to *Virecana* at the level of *Adhoamasaya*. *Virechanais* the prime treatment for *Pitta Dosha* & also effectively manages the *Kapha* & *Vata Dosha*. It pacifies the *Pitta Dosha* by *Adhobhagarana*. According to *Ayurveda*, *Pitta* is closely related with *Agni*, which is responsible for the digestive and metabolic processes in the body. So *Virechanais* an important measure of *Panchkarma* which is used for the treatment of *Kayagni*. So *Virechana* has its specific action on *Pitta* & *Kapha Dosha* which are expelled from *Amashya*, *Grahani* & *Pakvasya* through *Adhomarga*. *Acharya Charaka* defined *Virechana*¹⁴ as the process of eliminating of *Dosha* through the *Adhobhaga* (Anal route).While according to ‘*Gangadhara*’ elimination of *Dosha* in general is termed as *Virechana*. But in practical use *Virechana* is considered as the purification through anal route only. Detailed description of *Virechana* is present in all most all the *Ayurveda* text. The various references of *Virechana* in *Ayurveda* classics are, *Charak Samhita Sutrasthan* Chap.-1, 2, 4, 15, *Chikitsasthana*, *Kalpsthana*- Chap. 7th to 12th, *Siddhisthana*- Chap.1, 2, 6 *Sushruta SamhitaSutrasthan*- Chap 39, 41, 44, *Chikitsasthana*-33, 34, . *Astangsamgraha Sutrasthan*- Chapter 27. *Astang Hridaya Sutrasthan*- Chap.18, *Kalpsthana* Chap. 3,*Sharangdhar Samhita Purva Khanda*- Chapter4, *Uttarkhanda*- Chapter 4 *Chakradatta* Chapter-71 *Bhav Prakash Purvakhand*.

Indication of Virechana

1) As *Dosha Pratyanyika Chikitsa*¹⁵, Virechana is indicated in conditions like excessive *Pitta Dosha* where *Rakta* is the *Pradhana Dosha* i.e. *Kustha*, *Visarpa*, *Rakta Pitta*, *Gudapaka*, *Pitta- Kaphaja* conditions like *Adhoga Amla Pitta*, *Pitta* invading the site of *Kapha*, *Vayu* located in *Pakwashya*. If *Vayu* in association with *Pitta*, it pervades the entire body. In the treatment of *Vayu Mridu Virechana* is indicated like *Pakshaghata*. *Acharya Bhela* has mentioned *Virechana* in 'Sannipata' condition also.

2) As *Vyadhi Prtyanyika Chikitsa*, *Pitta Sthana Gata Vyadhi* like *Shvasa* diseases having deep seated pathology like *Unmada*, *Apasmara*, diseases involving multiple *Doshas* and *Dushyas* needing *Teekshna Shodhana* like *Garavisha*, *Krimi Kosta*, *Prameha* etc. Disease in which *Marga Virodha* as a treatment is indicated like *Urdwa*, *Rakta Pitta*, *Chhardi*. In which *Anulomana* of *Vayu* is required like *Udavarta*, *Udararoga*, *Yoni Vyapada*. As both *Dosha* and *Vyadhi Prtyanyika Chikitsa* disease dominated by *Pitta* like *Kamala*, *Pandu*. In diseases like *Grahani* where aggravated *Pitta* itself hampers *Agni*. Diseases caused by *Aam* like *Visuchika*. In *Astangasangraha Shodhana (Virechana)* has been mentioned for the treatment of *Sama Dosha*, *Sama Dushya*.

TAMKETU VIRECHANA¹⁶:

Acharyacharak has clearly mentioned about the indication of *Virechana Karma* in *Tamaka Shvasa*. And he further emphasizes that the *Vatanulomana* & regular cleaning of the *Srotas* of the *Vayu* should be done. In classical Ayurveda texts *Shvasa Roga* is said to be originated from the *Pittasthana* and the site of its expression is *Uraha Pradesh*. The main *Dosha* involvement here is of *Kapha* & *Vata*, and the *Gati* of *Vata* is *Pratiloma*. The *Pratiloma Gati* of *Vayu* must be brought to *Anulomana*. The *Pittasthana* disturbance leads to indigestion & production of *Aama Dosha* which is the cause of production of *Vikrut Kapha Dosha*. So it is important is to treat the root cause of *Shvasa Roga* i. e. *Pittasthana*. So this pathogenesis is broken by *Kapha Vataghana* and *Ushnaguna Ausadha*, drinks & diet. And to achieve this, *Virechan Karma* is the process which does the *Vata anulomna* and is *Kapha- Vataghana*. Secondly, *Dusti* of *Pitta Sthana* is the root cause of this disease and for removal of this *Dusta Pitta Virechan Karma* is the best procedure. *Virechana* is very useful when it is combined with *Vatahara* and *Kaphahara* drugs¹². The patient of *Tamaka Shvasa* is mostly weak and in chronic stage, *Hridya* as the *Mula* of *Pranavaha Shrotas* is also involved. In this condition *Vamana* is very difficult and complicated procedures & the *Virechana* is easily done without threatening the life of the patient.

DISCUSSION

Ayurveda considers *Shvasa Roga* as disease of *Pranavaha*, *Udakavaha* and *Annavaha Srotas*. *Acharya Charaka* explains that when in the *Pranavaha Shrotas*, *Kapha* obstructs the flow of *Prana Vayu*, the *Vayu* moves in *Pratilomagati* and surrounds the neck and head and causes excess secretion of *Dusta Kapha* which produces *Pinasa* (Coryza). Due to this excessive mucus discharge in *Pranavaha Shrotas* there is obstruction of *Pranavayu* & which produces characteristic sound like *Ghurghurkam* (wheezing): *Ativa Tivravega Shvasa* etc. And the important symptoms of *Tamaka Shvasa* which are helpful in diagnosis are as follows: *Ativativravega Shvasa*, *Ghurghurkam*, *Kasa*, *Asinolabhatesaukhyam*, *Mhur-mhurshvasa*, *Lalatesweda*, *Meghambupragyatevridhi*.

Shvasa Roga originates from the *Pittasthana* and the site of its expression is *Uraha Pradesh*. Here *Dosha* involvement is of *Kapha* & *Vata*. The *Pratilomagati* of *Vayu* must be brought to *Anulomana*. The *Pittasthana* disturbance leads to indigestion & production of *Aama Dosha* which is the cause of production of *Vikrut Kapha Dosha*. So it is of prime importance to treat the root cause of *Shvasa Roga* i. e. *Pittasthana*.

Hence *Virechana* is the main treatment to eliminate the *Dusta Pitta* and also for *Vata Anulaomana* , property *Virechana* is equally effective and important.

CONCLUSION

Cardinal symptoms of *Tamaka Shvasa* can be managed with *Vata* and *Kaphahara* drugs used in *Virechana Karma*. *Virechana Karma* may be very effective and safe in the management of *Tamaka Shvasa*.

REFERENCES

1. Shastri Kashinath, Agnivesh's Charaka Samhita with Ayurveda-Dipika Commentary by Cakrapanidatta and with Vidyotini Hindi commentary, Varanasi, *Chaukambha Sanskrit Academy*, reprint edition, 2012, part 2, chikitsa Sthana 17/55-62, 440, 441.
2. Shastri Kashinath, Agnivesh's Charaka Samhita with Ayurveda-Dipika Commentary by Cakrapanidatta and with Vidyotini Hindi commentary, Varanasi, *Chaukambha Sanskrit Academy*, reprint edition, 2012, part 2, chikitsa Sthana 17/8, 434.
3. Nicholas A. Boon et al, Davidson's Principles and Practice Of Medicine, Illustrated by Robert Britton, Boon, College, Walker, Hunter, Churchill Livingstone, *Elsevier Limited*, First Indian Reprint 2006, page no 670.
4. Koul PA, Patel D. Indian guidelines for asthma: Adherence is the key. *Lung India* [serial online] 2015 [cited 2017 Jul 12]; 32, suppl S1:1-2
5. Shastri Kashinath, Agnivesh's Charaka Samhita with Ayurveda-Dipika Commentary by Cakrapanidatta and with Vidyotini Hindi commentary, Varanasi, *Chaukambha Sanskrit Academy*, reprint edition, 2012, part I , Nidana Sthana 8/24, 25. Page no 542.
6. Indu, Vrddha Vagbhata's Astangasamgraha with the Sasilekha Sanskrit Commentary, Varanasi *Chaukambha Sanskrit Series Office*, Nidhana Sthana 4/1, Page 370.
7. Shastri Kashinath, Agnivesh's Charaka Samhita with Ayurveda-Dipika Commentary by Cakrapanidatta and with Vidyotini Hindi commentary, Varanasi, *Chaukambha Sanskrit Academy*, reprint edition, 2012, part II, Chikitsa Sthana 17/20, Page no 436.
8. Kabiraja Haranacandra Cakravati, Susruta's Susrutasamhita with Susrutartha Sandipana Bhasya Commentary, Varanasi, *Chaukhamba Surbharati Prakashan*, Volume 3, Uttarantra, 51/6, page 452.
9. Tripathi B, Shrimadvagbhata's Astanga Hrdayam with Nirmala Hindi Commentary Delhi, *Chaukhamba Sanskrit Pratishthan*, Nidhana Sthana 4/6, page no 455.
10. Shastri Kashinath, Agnivesh's Charaka Samhita with Ayurveda-Dipika Commentary by Cakrapanidatta and with Vidyotini Hindi commentary, Varanasi, *Chaukambha Sanskrit Academy*, reprint edition, 2012, Part II, Chikitsa Sthana , chapter 17.
11. Kabiraja Haranacandra Cakravati, Susruta's Susrutasamhita with Susrutartha Sandipana Bhasya Commentary, Varanasi, *Chaukhamba Surbharati Prakashan*, Volume 3, Uttarantra, 51/4, page 452.
12. Shastri Kashinath, Agnivesh's Charaka Samhita with Ayurveda-Dipika Commentary by Cakrapanidatta and with Vidyotini Hindi commentary, Varanasi, *Chaukambha Sanskrit Academy*, reprint edition, 2012, Part II Chikitsa Chikitsa, 17/48, page no 439.
13. Tripathi B, Shrimadvagbhata's Astanga Hrdayam with Nirmala Hindi Commentary Delhi, *Chaukhamba Sanskrit Pratishthan*, Nidana Sthana 4/3 page no 454.
14. Shastri Kashinath, Agnivesh's Charaka Samhita with Ayurveda-Dipika Commentary by Cakrapanidatta and with Vidyotini Hindi commentary, Varanasi, *Chaukambha Sanskrit Academy*, reprint edition, 2012, Kalpa Sthana, 1/4.
15. Indu, Vrddha Vagbhata's Astangasamgraha with the Sasilekha Sanskrit Commentary, Varanasi *Chaukambha Sanskrit Series Office*, Nidhana Sthana 27/4, Page 203.
16. Tripathi B, Shrimadvagbhata's Astanga Hrdayam with Nirmala Hindi Commentary Delhi, *Chaukhamba Sanskrit Pratishthan* , Sutra Sthana 18/3 page no 219.