EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Volume: 8
Issue: 3
206-211
Year: 2021

A COMPARATIVE STUDY OF NASYA WITH DASHAMOOLA GHRITA &SHADBINDU TAILA IN THE MANAGEMENT OF ARDHAVABHEDAKA W.S.R. TO MIGRAINE

Rachana Patel[1]*, Sharadchandra Dave[2] and Dhananjay Patel[3]

[1]Assistant Professor, Department of Panchkarma, K.J. Institute of Ayurveda & Research, Savli, Vadodara.
[2]Associate Professor & Head, Department of Kayachikitsa, Indian Institute of Ayurveda, Rajkot.
[3]Associate Professor & Head, Department of Kayachikitsa, SGAM, ITRA, Jamnagar.

***Corresponding Author: Dr. Rachana Patel**
Assistant Professor, Department of Panchkarma, K.J. Institute of Ayurveda & Research, Savli, Vadodara.
DOI: https://doi.org/10.17605/OSF.IO/PDGCZ

Article Received on 12/01/2021 **Article Revised on 02/02/2021** **Article Accepted on 22/02/2021**

ABSTRACT
Ardhavabhedaka has been explained as *Tridoshaja* by *Acharya Sushruta*, *Vata-Kaphaja* by *Charaka* and *Vataja* by *Vagbhatta*. Moreover, unilateral headache with paroxysmal nature is the only symptom mentioned for the disease *Ardhavabhedaka* by ancient scientists. Our *Acharyas* have mentioned *Nasya* Therapy as the master key for all *Urdhavajatrugata vikaras*. The present study was aimed to assess the *Nasya* with *Dashmoola Ghrita* and *Shadabindu Taila* in *Ardhavabhedaka* and to compare the effect of these two therapies in the treatment. Total 30 patients of *Ardhavabhedaka* were registered for the present study and were randomly dividedinto two groups. In group-A *Dashmoola Ghrita Nasya*, while in group-B *Shadabindu Taila Nasya*. In Both groups 16 drops was administered in each nostril for 14 day. The effects of therapy in both groups were assessed by a specially prepared proforma. The results of the study showed that both the groups showed significant relief in symptoms; however, compared to *Shadabindu Taila Nasya*, *Dashmoola Ghrita Nasya* showed better result in the management of *Ardhavabhedaka*. *Dashmoola Ghrita* or *Shadabindu Taila* can be used as an effective *ayurvedic* intervention in the treatment for Migraine. In group A & group B, maximum number of patients i.e. 50% & 46.15% respectively showed marked improvement.

INTRODUCTION
Migraine is now recognized as a chronic illness, not simply as headache. Migraine is the most common vascular headache.[1] The prevalence rate of the disease in India is 16-20% and the disease greatly affects the quality of life Moreover, it has been reported that most migraines are not treated according to any expert recommendations or accepted evidence. Also WHO has ranked Migraine among the world‟s most disabling medical illness.[2] The scope for prevention ofthe disease in modern science is not satisfactory. Hence, an attempt has been made to study the complete aspect of disease and to find the best possible way for the betterment of mankind. Migraine can be a challenging disease to diagnose because it is a clinical diagnosis based on symptoms that are subjective and verifiable only by the patient. *Ardhavabhedaka* can be scientifically correlated with Migraine due to its cardinal feature “half sided headache” which is also explained by commentator *Chakrapani* as “*Ardha Mastaka Vedana”*.[3] and also due to its paroxysmal nature. *Ardhavabhedaka* has been explained as *Tridoshaja* by *Acharya Sushruta*.[4] *Vata-Kaphaja* by *Charaka*.[5] and *Vataja* by *Vagbhatta*.[6] The various types of pain explained by different *Acharyas* suggest the *Vishama* nature of *Vata dosha*. Moreover, the symptoms nausea, vomiting and giddiness are also seen, which shows the involvement of *Pitta dosha,* which can beexplained as Vomiting & burning sensation symptoms are seen when *Prana Vayu* combines withPitta.[7] *Udana Vayu* with *Pitta* results in *murchha, daha, bhrama* and *klama*.[8] The symptom *bhrama* is due to *Rajoguna* and *Pitta- Vata dosha* involvement.[9] *Nasya* is indicated by almostall the Acharyas for its effective management of Shiro –Roga.[10] Hence, *Dashamoola Ghrita Nasya* has been selected from *Chakradatta Shiro-roga adhikara8*.[11] *Dashamoola* is having *Vatanashaka, Kaphanashaka* and *Vedanasthapaka i*.e. pain relieving properties are having a specific role in the management of *Ardhavabhedaka,* which is mostly correlated with Migraine.

Shadbindu Tail.[12] that is taken as control group (Group B), *Acharya* mentioned that theapplication of *shadbindu tail* is good for disorders of organ above the upper clavicle.[13]

AIMES AND OBJECTIVES
1. To Study the *Nasya karma* and its role in *Ardhavbhedaka.*
2. To assess the efficacy of “*Dashmoola Ghrita”*

Nasya in the management of *Ardhavabhedaka* in comparision to "*ShadBindu Taila" Nasya* as control group.

MATERIALS AND METHOD

Literary: For present study, Ayurved texts as well as Modern books were referred.

Clinical: For clinical study, 30 patients having classical signs & symptoms of Ardhavabhedaka were selected from the O.P.D. of Govt. Akhandanand Ayurved Hospital, Ahmedabad. Patients were divided into two groups, each having 15 patients. Out of total, 27 patients have completed the treatment, 14 in group A and 13 in group B. Three patients discontinued course of treatment.

Inclusion Criteria

- Patient having age between 16 to 60 years.
- Patient having no systemic complication.
- *Nasya Yogya* as per *Ayurvedic classics.*

Exclusion Criteria

- Traumatic Injury
- Chronic Sinusitis
- Tumors
- Hypertension
- Cerebral Hemorrhagic condition
- Nasya ayogya patients as per classical text will be excluded.

Criteria for Diagnosis

- Patients in the age group 16 to 60 years, presenting with signs and symptoms of Ardhavabhedaka Migraine described as per Ayurveda and modern science were included in the study.
- The diagnosis of the disease was done on the basis of clinical manifestations like recurrent attacks of headache, mostly unilateral in site, variable in intensity, frequency and duration with or without nausea, vomiting, aura and GI tract symptoms.
- Detailed clinical history was taken and complete physical examinations were done on the basis of a special proforma incorporating all the signs and symptoms of Ardhavabhedaka vis-à-vis Migraine. Routine urine, blood examinations, was conducted wherever required before and after treatment.

Grouping and Posology

Total 30 patients were registered from the O.P.D. & I.P.D. of Government Akhandanand Ayurved College & Hospital and Smt. Maniben Ayurved Hospital, Ahmedabed which were randomly divided into 2 groups:

- **Group-A *Dashmoola Ghrita***

Ingredients: *Bilva, Agnimantha, Syonaka, Patala, Kashmarya, Shaliparni, Prushniparni, Brihati, Kantakari, Gokshura, Saindhava.*

Group-B *ShadabinduTaila*

Ingredients: *Eranda, Tagar, Shatavari, Jivanti, Rasna, Bhringaraja, Vidanga, Vidanga, Shunthi, Saindhava, Tila Taila, Ajadugdha.*

Group	No. of	Drug	Dose	Duration
Group-A	15	*Dashmoola siddha*	Each nostril 16	14 days
Group-B	15	*Shadbindu Tail*	Each nostril 16	14 days

Follow up Study

After completion of treatment, the patients were reviewed at every 7 days for a period of 3 weeks.

Criteria for Assessment

The Assessment was based on relief found in the signs and symptoms of the disease. For this purpose main signs and symptoms were given suitable score accordingly and assessed before and after the treatment. The details of the score adopted for the main signs and symptoms in this study are as follows: Chief complaints were given score as follow:

➢ **Severity of Headache**

0 = No headache.

1 = Mild headache, patient is aware only if he/she pay attention to it. 2 = Moderate headache, can ignore at times.

3 = Severe headache, can‟t ignore but he/she can do his/her usual activities. 4 = Very severe headache, can‟t do anything.

➢ **Frequency of Headache:** Assessed in term of (frequency in days)0 = Nil / Absent

1 = Once in 16 days or more2 = Once in 11-15 days

3 = Once in 6-10 days

4 = Once in 5 days or less

➢ **Duration of Headache:** (Assessed in term of hours/day)0 = Nil / Absent

1 = 1-3 hours/day

2 = 4-6 hours/day

3 = 7-12 hours/day

4 = More than 12 hours/day

➢ ***Nausea***

0 = Nil / Absent 1 = Occasionally

2 = Moderate, but does not disturb the routine work 3 = Severe, disturbing routine work

4 = Severe enough, small amount of fluid regurgitating from mouth

➢ **Vomiting**

0 = Nil / Absent

1 = only if headache does not subside 2 = Vomiting 1-2

times
3 = Vomiting 3-4 times
4 = Forced to take medicine to stop vomiting

- **Aura**

0 = Nil / Absent
1 = Lasts for 5 minute
2 = Lasts for 10 minute
3 = Lasts for 15 minute
4 = Lasts for 20 minute

- **Vertigo**

0 = Nil /Absent
1 = Feeling of giddiness
2 = Patient feels as if everything is revolving 3 = Revolving signs + black outs
4 = Unconscious

- **Gradation For Associated Symptoms**

2 = Present before treatment / No change 1 = Improvement after treatment
0 = Absent

Criteria For Final Assessment of Results

Cured	100% relief in sign and symptoms has been considered as cured
Marked improvement	76-100% improvement in signs and symptoms has been considered asmarked improvement
Moderately	51-75% improvement in signs and symptoms has been recorded asmoderate improvement
Mild improvement	26-50% improvement in signs and symptoms has been considered asmild improvement
Unchanged	Up to 25% reduction in signs and symptoms was noted as unchanged

Statistical Analysis

The information collected on the basis of above observations was subjected to statistical analysisin terms of mean (X), standard deviation (S.D.) and standard error (S.E.) Paired „t" test was carried out at $P < 0.05$, $P < 0.01$ and $P < 0.001$ levels. The obtained results were interpreted as: -

Insignificant	$P > 0.05$
Significant	$P < 0.05$
Significant	$P < 0.01$
Highly significant	$P < 0.001$

OBSERVATIONS AND RESULTS

Total 30 patients were registered out of which 27 had completed (14in Group A and 13inGroup B) and 3 discontinued (1 in Group A and 2in Group B).

It was found that most of the patients were belonging to the age group of 15– 25 years &26-35 years (36.67%), Females (76.67%), Hindu (70%), House wife (36.67%), Graduate (33.33%), Married (63.33%), Middle class (46.67%), Urban habitat (100%), Vegetarian

(76.67%), Alpanidra (43.33%), *Vatakapha prakriti* (40%), Rajas prakriti (56.67%), *Madhyama Sara* (63.33%), *Samhanana* (63.33%), *Pramana* (66.67%), *Vyayama shakti* (70%), *Abhyavaharana Shakti* (46.67%), followed by *Jarana shakti* (50%), *Sarvarasa Satmya* (86.67%),*Avara Satva* (50%), *Vishamagni* (43.33%) and 100% patients were belonged to *Sadharan Desha.* Maximum patients were negative family history (76.67%) and Irregular bowel habit (46.67%).

Maximum patients were having *tivra* nature of headache (53.33%), *Shankhanistoda* and *Akshinishkasan* type of headache (50% and 40% respectively). Acute onset of headache was seenin 56.67% and chronicity of 1-2 years and 3-5 years (36.67% respectively). The duration more than 12 hrs/day was seen in 56.67% each with episode of 10 days in 36.67%, continuous rhythm in 80 % and daily course at noon in 46.67% was seen.

The maximum *nidanas* (etiological factors) observed in patients were *Adhyashana* (76.66%), *Anashana* (73.33%), and *Atisheeta jala sevana* (76.67%), followed by *Diwaswapa* (73.33%), *Chinta* (66.67%) and *Ratri jagarana* (53.33%).

Maximum triggering factors reported were Sunlight (40%), and Emotional Stress (36.67%) and physical stress (33.33%). Modern Medicine was observed as maximum alleviating factor i.e. 73.33%.

The chief complaints reported from the patients were *Ardha mastaka vedana* (100%), Nausea (96.67%), Vomiting (83.33%), Vertigo (80%) and Aura (26.67%).

Regarding the associated symptoms 76.67% patients had Photophobia, 66.67% had Phonophobia, 10% had Rhinorrhoea, 56.67 % had Heaviness of eye, 63.33% had Ocular pain, 46.67% had Diplopia, 50% had Hyperchlorhydria, 40% had Disturb sleep, and 63.33% had Neckstiffness.

In this study sample Majority of patients i.e. 85.19% got *samyak yoga lakshana* and 14.81% patients got *atiyoga lakshna. Ayoga lakshna* was absent in case of any patient.

RESULTS

Table 1: Overall Effect of therapy on chief Symptoms (Paired t test).

Group	„n‟	Mean score		% of Relief	„t‟	P
		B.T.	A.T.			
SEVEARITY OF HEADACHE						
A	14	2.71	0.86	68.42	9.02	<0.001
B	13	2.62	1.31	50	6.28	<0.001
DURATION OF HEADACHE						
A	14	3.29	1.36	58.70	4.17	<0.001
B	13	3.38	1.54	54.55	5.20	<0.001
FREQUENCY OF HEADACHE						
A	14	2.29	0.64	71.88	6.62	<0.001
B	13	1.85	0.85	54.17	4.42	<0.001
NAUSEA						
A	14	2.36	0.5	78.79	9.02	<0.001
B	13	2.31	0.85	63.33	6.01	<0.001
VOMITING						
A	11	1.94	0.64	66.67	4.67	<0.001
B	12	1.75	0.83	52.38	4.75	<0.001
VERTIGO						
A	12	2.08	0.5	76	5.06	<0.001
B	10	2	0.9	55	3.97	<0.01
AURA						
A	5	1.8	0.6	66.67	3.21	<0.05
B	3	1.33	0.33	75	1.73	>0.05

Group A: Relief in severity (68.42%), duration (58.70%) & frequency of headache (71.88%) & nausea 78.79%), vomiting (66.67%), vertigo (76%) & aura (66.67%).

Group B: Relief in severity (50%), duration (54.55%) and frequency (54.17%) of headache and nausea (63.33%), vomiting 52.38%), vertigo (55%) & aura (75%).

Table 2: Effect of therapies on associated symptoms in patients of *Ardhavabhedaka* in Group A (Paired t test).

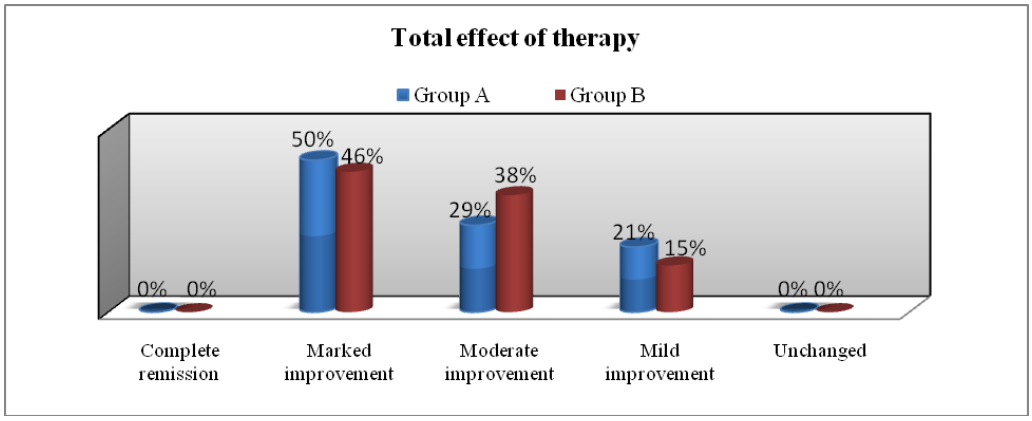
Symptoms	„n‟	MeanB.T.	MeanA.T.	% Relief	S.D.	S.E.	T Value	P Value
Photophobia	12	2	0.58	70.83	0.67	0.19	7.34	<0.001
Phonophobia	10	2	0.4	80	0.70	0.22	7.24	<0.001
Rhinorrhoea	3	2	0.67	66.67	1.15	0.66	2	>0.05
Heaviness of eye	7	2	0.57	71.43	0.53	0.20	7.07	<0.001
Ocularpain	9	2	0.56	72.22	0.73	0.24	7.07	<0.001
Diplopia	6	2	1.67	41.67	0.98	0.40	2.08	> 0.05
Hyperchlorhydria	9	2	0.67	66.67	0.5	0.17	8	<0.001
Sleep disturb	8	2	0.63	68.75	0.74	0.26	5.23	<0.01
Stiffness of neck	11	2	0.55	72.73	0.69	0.21	7.02	<0.001

Group A: Relief in Photophobia (70.83%), Phonophobia (80%), Rhinorrhoea (66.67%) Heaviness of eyes (71.43%), Ocular pain (72.22%), Diplopia (41.67%), Hyperchlorhydria (66.67%), Sleep disturb (68.75%) and Stiffness of neck (72.73%).

Table 3: Effect of therapies on Assosiated symptoms in patients of *Ardhavabhedaka* in Group B (Paired t test).

Symptoms	„n‟	MeanB.T.	MeanA.T.	% Relief	S.D.	S.E.	T Value	P Value
Photophobia	10	2	0.9	55	0.74	0.23	4.71	<0.01
Phonophobia	8	2	0.5	75	0.76	0.27	5.61	<0.001
Heaviness of eye	8	2	0.36	75	0.53	0.19	7.33	<0.001
Ocularpain	8	2	0.38	75	0.76	0.27	5.61	<0.001
Diplopia	8	2	0.88	56.25	0.99	0.35	3.21	<0.05
Hyperchlorhydria	5	2	0.6	70	0.55	0.24	5.72	<0.01
Sleep disturb	4	2	0.5	75	0.58	0.29	5.20	<0.05
Stiffness of neck	7	2	0.29	78.57	0.53	0.20	7.78	<0.001

Group B: Relief in Photophobia (55%), Phonophobia (57.5%), Heaviness of eyes (75%), Ocular pain (75%), Diplopia (56.25%) Hyperchlorhydria (70%) Sleep disturb(75%) and Stiffness of neck (78.57%)



The overall effect of therapy showed that in Group A, 50% patients had marked improvement, followed by 28.57% moderate improvement and 21.43% patients had mild response. In Group B, 46.15% patients had marked improvement, followed by 38.46% moderate improvement and 15.38% had mild improvement.

Table 4: Group Wise Total Effect of Therapy on Signs And Symptoms Of *Ardhavabhedaka*.

	„n"	Mean score		% ofRelief	X	S.D. ±	S.E. ±	„t"	P
		B.T.	A.T.						
Group A	16	22.13	6.63	70.06	15.5	7.78	1.94	7.98	<0.001
Group B	15	19.73	7.27	63.18	12.47	5.38	1.39	8.97	<0.001

Comparison of both *Nasya* -Group A provided 70.06% relief and Group B provided 63.18% relief in all complaints of Ardhavabhedaka. Both were statistically highly significant.

DISCUSSION

In this study sample Majority of patients i.e. 76.67% were female which clearly shows the predominance of the disease in females. Also women with migraines tend to over-respond to stressful situations and being diligent, conscientious they overly sensitive to pressure from others.

In the female patients, maximum i.e. 36.67% of patients were housewives**.** The nature of house hold work, due to *Vega Dharana*, irregular dietary habits would have probably triggered disorder more in females; The familiarly stress may lead to *Vata Prakopa*, which in future turns into *Agnimandhya*.

Vata is chief culprit in *shoola.* The drug *Dashmoola* and *Shadabindu* used for *Nasya* relieved the *shoola* in both groups. Severity, frequency and duration of Headache were also relieved. The results were highly significant which indicates that *Dashmoola Ghrita* and *Shadabindu Taila* were able to provide symptomatic relief in Migraine. This effect may be due to *Vedana Shamak* properties of both drugs, which is given by *Nasya Karma*.

A clear description regarding the mode of action of *Nasya Karma* is not available in *Ayurvedic* classics. *Acharya Charaka* has described that *Nasa* is the only gateway to *Shirah.*[14] So, the medicine administered through *Nasa* can easily spread to *Shirah* and get absorbed.

Probable mode of action of *Dashmoola Ghrita Nasya*

- Most of the drugs in *Dashmoola* are having *Snigdha, Guru guna, Ushna veerya,* and *Vata shamaka* properties.
- All the above properties are very useful to alleviate the *Vata* which is aggravated by
- *Dhatukshaya, Vata Prakopaka Ahara* & *Vihar, Panchakarma vyatikarma, Abhighata* etc.
- *Tikshna, Sukshma, Vyavayi guna* and Ushna veerya remove the *Avarana* of *vayu* and retain its normal *gati.*
- *Balya, Brimhaniya* properties of drugs can nourish and increase the tone of *dhatus.*
- *Nasya* is directly affect the site i.e. *Murdha* where *khavaigunya* takes place.
- Tikta, Madhura, Kashaya Rasa & Laghu, Ruksha guna of Drugs mentioned in Dashmoola Ghrita which purify the Rakta Dhatu, which is the chief Dushya in Shiroroga.

CONCLUSION

Both *Dashmoola Ghrita* and *Shadabindu Taila* Significant improve all the symptoms like*Ardha Mastaka Vedana* Nausea, Vomiting and on other associated symptoms of the disease *Ardhavabhedaka.* But the Percentage of relief were better in *Dashmoola Ghrita* treated patients. It can be concluded that there is satisfying scope of suggesting these *Ayurvedic* management like *Nasya* of *Dashmoola Ghrita* as safe and effective treatment for *Ardhavabhedaka.*

REFERENCES

1. Harriso s principle of internal Medicine, McGraw-Hill medical publication 16th International edition, 1: 88.
2. How Stuff Works - Health Channel (<http:// healthguide.howstuffworks.com/%20>).
3. Chakrapani: Ayurveda Dipika Commentary on Charaka Samhita, Edited by Yadavaji Trikamji Acharya. Chaukhambha Sanskrit Sansthana, Varnasi Sutra Sthana, 7/16.
4. Sushruta: Sushruta Samhita Uttartantra with Ayurveda Tatva Sandipika Hindi Commentary by Shastri A., Chaukhambha Sanskrit Sansthana, Varanasi, 25/15.
5. Charaka: Charaka Samhita Siddhi sthana with Ayurveda Dipika Commentary of Chakrapanidatta, Edited by Vaidya Jadavaji Trikamji Acarya; Chaukhamba Sanskrit Sansthana Varanasi; Fifth Edition, 2001; 9/74-79.
6. Vagbhatta: Astaga Hridaya, Uttar Sthana with Nirmala Hindi Commentary By. Bramhanand Tripathi Chaukhambha Sanskrit Pratisthan, Delhi, 23/7-8.
7. Sushruta: Sushruta Samhita Nidanasthanawith Hindi comm. by Ambikadatta shastri, Chaukhambha Sanskrit Series, Varanasi, 1/34.
8. Sushruta: Sushruta Samhita Nidanasthanawith Hindi comm. by Ambikadatta shastri, Chaukhambha Sanskrit Series, Varanasi, 1/35.
9. Sushruta: Sushruta Samhita Nidanasthanawith Hindi comm. by Ambikadatta shastri, Chaukhambha Sanskrit Series, Varanasi, 4/55.
10. Charaka: Charaka Samhita Siddhi sthana with Dipika Commentary of Chakrapanidatta, Edited by Vaidya Jadavaji Trikamji Acarya; Chaukhamba Sanskrit Sansthana Varanasi; Fifth Edition, 20019/74-79.
11. Chakrapani Dutta,Chakradutta-Vaidya Prabha Hindi Commentary with explanation, commentator - Dr.Indradeva Tripathi,editor.Acharya Ramanatha Dwevedi.4th ed. Chakradutta 60/42 Varanasi. Chowkhambha Sanskrit Sansthana, 2010; 374.
12. Bhavaprakasha of Shri Bhavamishra with Vidyotini Hindi commentary and notes by Bhishagratna Pandit Bhramha Shankar Mishra,Chaukhambha Sanskrit Bhavan, Varanasi 11th edition, Part-2, Shiroroga adhikara, 2009; 62/36: 612.
13. Bhavaprakasha of Shri Bhavamishra with Vidyotini Hindi commentary and notes by Bhishagratna Pandit Bhramha Shankar Mishra,Chaukhambha Sanskrit Bhavan, Varanasi 11th edition,Part-2, Shiroroga adhikara, 2009; 62/37: 612.
14. Charaka: Charaka Samhita Siddhi sthana with Dipika Commentary of Chakrapanidatta, Edited by Vaidya Jadavaji Trikamji Acarya; Chaukhamba Sanskrit Sansthana Varanasi; Fifth Edition, 2001; 9/88.
15. Vagbhatta: Astaga Hridaya, Sutra sthana with Nirmala Hindi Commentary By. Bramhanand Tripathi Chaukhambha Sanskrit Pratisthan, Delhi, 20/1.