

## ORIGINAL RESEARCH ARTICLE

# Effect of *Kalavasti* and *Nasya* with *Karpasathyadi Taila* in the Management of *Pakshaghata* W. S. R to Hemiplegia – A Comparative Clinical Study

Anil Gupta 

Medical Officer Directorate of Ayush, Government of Jammu and Kashmir, Jammu and Kashmir, India.

### ARTICLE INFO

#### Article history:

Received on: 1-04-2024

Accepted on: 19-04-2024

Available online: 30-04-2024

#### Key words:

*Dashamoola Kashaya*,  
*Hemiplegia*,  
*Kala Vasti*,  
*Maha Manjisthadi Kashaya*,  
*Nasya*,  
*Pakshaghata*,  
*Sahacharadi Taila*,  
*Vatagajankusha Rasa*,  
*Yavanyadi Kalka*

### ABSTRACT

**Background:** Recent rapid socioeconomic changes have led to a concomitant change in people's lifestyle, leading to work-related stress and altered food habits, raising the risk of hypertension. Those factors, coupled with an increase in the average life expectancy, are expected to have an impact on the occurrence of stroke disorder in India. In India, these data are more horrible as 64,000 deaths occur per year. Out of these mortality rates, 5000 deaths are under the age of 65.

**Objectives:** The objectives were to study *Pakshaghata* vis-à-vis Hemiplegia in detail and to assess the efficacy of Kala Vasti along with *Vatagajankusha Rasa* with *Maha Manjisthadi Kashaya* as *Anupana* internally and *Nasya* with *Karpasathyadi Taila* along with *Vatagajankusha Rasa* with *Maha Manjisthadi Kashaya* as *Anupana* internally in the management of *Pakshaghata*.

**Methods:** The present clinical study contains sample size of 40 subjects, divided into two groups A and B, each having 20 subjects. All the 40 subjects were given *Amapachana* with *Gandharva Hastadi Kashaya*, and Group A subjects were treated by *Vasti* in *Kala Vasti* schedule and Group B subjects were subjected to *Nasya*. Both the subjects of the groups were received *Vatagajankusha Rasa* as *Shamanoushadhi* for 30 days with *Maha Manjisthadi Kashaya* as *Anupana*. Follow-up period was 3 months.

**Results:** Both groups showed significant improvement in the signs and symptoms of *Pakshaaghata*, as well as the activities of daily livings, thereby making better quality of life of the patients.

**Conclusion:** Hence, it can be concluded that better result can be obtained with *Vasti* containing *Dashamoola Kashaya*, *Yavanyadi Kalka*, and *Sahacharadi Taila* along with *Tab. Vatagajankusha Rasa* and *Maha Manjisthadi Kashaya* as *Anupana* internally. *Vasti* can help in better improvement of *Pakshaghata* symptoms.

## 1. INTRODUCTION

The disease Hemiplegia is characterized by more or less sudden paralysis affecting one side of the body as well as sensory, motor, visual, and speech functions. Hemiplegia has three types of mode of onset, that is, sudden, recurrent, and gradual.<sup>[1]</sup> There are lots of causes

of Hemiplegia such as cerebro vascular accident, carotid insufficiency, thrombosis, hypertensive encephalopathy, hematoma, contusion, and growth.<sup>[2]</sup> On the basis of morbidity out of all cases, 45% patient of stroke can live independently and 22% of patients become dependent on others for their day-to-day work for whole of their life, but approximately 20% of patients require admission in institutions or hospitals.<sup>[3]</sup> *Pakshaghata* can be correlated with hemiplegia of modern medicine. *Pakshaghata* has been enlisted amongst the eighty types of *Nanatmaja Vata Vyadhi* and is considered to be prominent of all *Vata Vyadhi*.<sup>[4]</sup> Ayurveda has broadly clarified treatment into three parts,

#### Corresponding Author:

Anil Gupta,  
Medical Officer Directorate of Ayush,  
Government of Jammu and Kashmir, Jammu and Kashmir, India.  
Email: [dranilgupta83@gmail.com](mailto:dranilgupta83@gmail.com)

that is, *Nidana Parivarjana*, *Shodhana*, and *Shamana Chikitsa*. Many therapeutic principles have been recommended in Ayurvedic classics for the treatment of *Pakshaghata*. *Vata Dosha*, *Snehana*, *Swedana*, and *Mridu Samshodhana* are selective therapies. *Vasti Karma* is the ultimate treatment modality advised for *Vata Vyadhi*. *Nasya Karma* does have a role in *Vata Vyadhi*, since there is *Vikruti* in the *Mastishka Marma Sthana*, *Nasya Karma* is generally advisable.<sup>[5]</sup> The subjects suffering from *Pakshaghata* (Hemiplegia) fulfill that the criteria of selection of the present study were selected for the trial. The subjects were subjected for detail clinical examination and investigation as per the specially designed proforma. The present clinical study contains sample size of 40 subjects. They were divided into two groups as Group A and Group B, each having 20 subjects. All the 40 subjects were given *Amapachana* with *Gandharva Hastadi Kashaya*. Then, Group A subjects were treated by *Vasti* in *Kalavasti* schedule and Group B subjects were subjected to *Marsha Nasya*. Both the subjects of the groups were received *Vatagajankusha Rasa* as *Shamanoushadhi* for 30 days with *Maha Manjishthadi Kashaya* as *Anupana*. Follow-up period was 3 months.

### 1.1. Objectives of the Study

The objectives of the study are as follows:

- To study *Pakshaghata* vis-à-vis Hemiplegia in detail.
- To assess the efficacy of *Kalavasti* and *Vatagajankusha Rasa* with *Maha Manjishthadi Kashaya* in the management of *Pakshaghata*.
- To assess the efficacy of *Marsha Nasya* and *Vatagajankusha Rasa* with *Maha Manjishthadi Kashaya* in the management of *Pakshaghata*.
- To find an effective, affordable, easily available method of treatment in Ayurveda.

## 2. MATERIALS AND METHODS

- Study Design: Clinical Trial.
- The present study was a clinical trial to assess efficacy of *Kala Vasti* followed by the oral therapy *Vatagajankusha Rasa* along with *Maha Manjishthadi Kashaya* as *Anupana* in Group A and *Nasya* (*Marsha Nasya*) with *Karpasathyadi Taila* followed by the oral therapy *Vatagajankusha Rasa* along with *Maha Manjishthadi Kashaya* as *Anupana* in Group B.

### 2.1. Group 1

- *Ama Pachana* with *Gandharva Hastadi Kashaya* 30–45 mL twice a day for 3–5 days/till *Nirama Lakshana* are attained.
- *Kala Vasti* schedule with *Dashamoola Kashaya*, *Yavanyadi Kalka* (*Asthapana*) and *Sahacharadi Taila* (*Anuvāsana*) for 16 days.
- Tab. *Vatagajankusha Rasa*, 125 mg, twice daily for 1 month along with *Maha Manjishthadi Kashaya* as *Anupana*.

### 2.2. Group 2

- *Ama Pachana* with *Gandharva Hastadi Kashaya* 30–45 mL twice a day for 3–5 days/till *Nirama Lakshana* are attained.
- *Nasya Karma* (*Marsha Nasya*) with *Karpasathyadi Taila* for 7–14 days.
- Tab. *Vatagajankusha Rasa*, 125 mg, twice daily for 1 month along with *Maha Manjishthadi Kashaya* as *Anupana*.

### 2.3. Duration

The study duration was 45 days.

### 2.4. Follow up

The follow-up was 3 months.

### 2.5. Source of Materials

Raw materials were collected from the department of Rasashastra and Bhaishajya Kalpana, Ayurveda Mahavidyalaya, Hubli, prepared classically in the Pharmacy of Rasashastra and Bhaishajya Kalpana, Ayurveda Mahavidyalaya, Hubli.

The following materials were utilized for clinical trial:

- *Gandharva Hastadi Kashaya*, *Madhu*, *Saindhava Lavana*, *Sahacharadi Taila*, *Yavanyadi Kalka*, *Dashamoola Kashaya*, *Karpasathyadi Taila*, *Vatagajankusha Rasa*, *Maha Manjishthadi Kashaya*.

### 2.6. Methods

#### 2.6.1. Source of data

Subjects attending the OPD and IPD of Post Graduate Departments of *Kaya Chikitsa* and *Shalya Tantra*, Ayurveda Mahavidyalaya, Hubli were taken randomly for study. Regular informative was placed in the local print media to create awareness about the condition and its management.

#### 2.6.2. Inclusion criteria

The following criteria were included in the study:

- Subjects with classical features of *Pakshaghata*.
- Subjects from both the sex and age group between 20 and 60 years.
- Chronicity >6 months.
- Subjects fit for the procedure.

#### 2.6.3. Exclusion criteria

The following criteria were excluded from the study:

- Subjects with uncontrolled metabolic disorders and other systemic disorders.
- Subjects with HIV and HbsAg<sup>+</sup>ve.
- Subjects who need surgical measure (growth, hemorrhage, etc.) before surgery.
- Comatose Subjects.
- Subjects with degenerative disorders of brain.
- Subjects with Intra cranial infectious disease.
- Subjects not fit for procedure.

### 2.7. Criteria for Assessment<sup>[6]</sup>

The assessment was based on the improvement in the subjective and objective parameters.

#### 2.7.1. Subjective parameter

Motor functions of lower and upper extremity, language, and speech.

#### 2.7.2. Objective parameter

Higher Mental Functions, Appearance, and Behavior, Memory (Short term and long term), Orientation, Intelligence, Strength, Tone of Muscle, Deep tendon Reflexes, Superficial Tendon reflexes, and Gait.

These were graded as follows and were assessed before and after treatment.

### 2.8. Motor Function of Arm

0 = No drift; limb holds 90 (or 45) degrees for full 10 s.

1 = Drift; limb holds 90 (or 45) degrees, but drifts down before full 10 seconds; does not hit bed or other support.

2 = Some effort against gravity; limb cannot get to or maintain (if cued) 90 (or 45) degrees, drifts down to bed but has some effort against gravity.

3 = No effort against gravity; limb falls.

4 = No movement.

## 2.9. Motor Function of Leg

0 = No drift; leg holds 30° position for full 5 s.

1 = Drift; leg falls by the end of the 5 s period but does not hit bed.

2 = Some effort against gravity; leg falls to bed by 5 s, but has some effort against gravity.

3 = No effort against gravity; leg falls to bed immediately.

4 = No movement.

## 2.10. Language

0 = No aphasia;

1 = Mild-to-moderate aphasia;

2 = Severe aphasia; all communication is through fragmentary expression.

3 = Mute, global aphasia; no usable speech or auditory comprehension.

## 2.11. Dysarthria

0 = Normal.

1 = Mild-to-moderate dysarthria; Patient slurs at least some words and, at worst, can be understood with some difficulty.

2 = Severe dysarthria; Patient's speech is so slurred as to be unintelligible in the absence of or out of proportion to any dysphasia, or is mute.

## 2.12. Consciousness: Orientation

0 = Alert; keenly responsive, 1 = Not alert; but arousable by minor stimulation to obey, answer, or respond, 2 = Not alert.

## 2.13. Level of consciousness (Commands)

The patient is asked to open and close the eyes and then to grip.

0 = Performs both tasks correctly, 1 = Performs one task correctly, 2 = Performs neither task correctly.

## 2.14. Level of consciousness (Questions)

The patient is asked the month and his/her age.

0 = Answers both questions correctly, 1 = Answers one question correctly, 2 = Answers neither question correctly.

## 2.15. Coordination

### 2.15.1. Finger-nose test

0 = Absent., 1 = Present in one limb., 2 = Present in two limbs.

### 2.15.2. Finger-finger test

0 = Absent, 1 = Present in one limb, 2 = Present in two limbs.

### 2.15.3. Strength

0 = Normal, 1 = Partial paralysis, 2 = Complete paralysis.

### 2.15.4. Tone of muscle

0 = Normal, 1 = Hypotonic, 2 = Hypertonic.

### 2.15.5. Grade of reflex

0 = Absent, 1 = Present, 2 = Exaggerated, 3 = Clonus.

## 2.16. Gait

0 = Walks without support, 1 = Walks with support like stick, wall etc., 2 = Walks with slight help, 3 = Bed ridden.

### 2.16.1. Sitting from lying down

0 = Without support, 1 = With support, 2 = Unable.

## 2.17. Investigation

- Common hematological investigations like: Hb%, TC, DC, E.S.R, F.B.S, P.P.B.S.
- Common urological investigation: Urine sugar, Albumin, Micro
- Special Investigations: C T scan of brain will be done, if necessary, Tridot test for HIV.

## 2.18. Statistical Tests

The analysis of the effects of therapy was based on "t-test" applications. The efficacy of Kala Vasti and Marsha Nasya will be compared. The significance is discussed on the basis of mean scores, percentages, SD, SE, "t," and "P"-values.

### 2.19. Level of Significance

- Values  $P \neq < 0.05$  is statically insignificant
- $P \neq < 0.02$  is statically significant
- $P \neq < 0.01$  and  $P \neq < 0.001$  is statically highly significant.

## 3. OBSERVATION

In this study on *Pakshaghata*, 40 subjects were registered. Out of them, 20 subjects were treated under Group A and 20 subjects under Group B. Irrespective of the groups under which the subjects were treated, the observation according to the age, sex, occupation, etc. is given henceforth.

During the clinical study on *Pakshaghata* (Hemiplegia) through Vasti and Nasya, a maximum number of study subjects, *that is*, 22 (55%) subjects were of 51–60 years age, 14 subjects (35%) were between 41 and 50 years, 02 subjects (05%) were between 20 and 30 years, 02 subjects (05%) were between 31 and 40 years [Table 1].

A maximum number of study subjects, *that is*, 29 males (72.5%) and 11 females (27.5%) were registered [Table 2].

As per the affected side, 20 subjects (50%) were having right-side hemiplegia and 20 subjects (50%) were having left-side hemiplegia [Table 3].

A maximum number of study subjects, *that is*, 24 subjects (60%) were without lakshana of facial paralysis and 16 subjects (40%) were with lakshana of facial paralysis [Table 4].

A maximum number of study subjects, *that is*, 40 subjects (100%) were having *karmahani*, 27 subjects (67.5%) were having *ruja*, 25 subjects (62.5%) were having *vakstambha*, 21 subjects (52.5%) were having *Vichetana*, 19 subjects (47.5%) were having *sira snayu sankocha*, 18

subjects (45%) were having sira snayu visosha, and 12 subjects (30%) were having sandhibandhana vimokshana [Table 5].

#### 4. RESULTS

Effect of therapy on different parameters such as Mukha parshwa greevavedana, Vaksanga, *Karna vedana*, *Mukha vakrata*, *Akshi nimesha asamarthya*, *Lalata vali nasha*, and *Lalasarava* was evaluated. Totally 30 subjects were registered for clinical trial. The inclusion criteria were clinical features of Ardit (Facial Palsy), Age group between 20 and 70 years of either sex, and patients who are fit for *Nasya* and *Shirobasti karma*.

Effect of *Nasya* on Mukha parshwa greevavedana in Group A: The mean before treatment was 0.80 which were reduced to 0.13 after the treatment. The total effect of therapy provided statistically significant ( $P < 0.02$ ) result with “*t*” value of 2.87.

Effect of *Shirobasti* on Mukha parshwa greevavedana in Group B: The mean before treatment was 0.80 which was reduced to 0.27 after the treatment. The total effect of therapy provided statistically significant ( $P < 0.05$ ) result with “*t*” value of 2.48 [Table 6].

Effect of *Nasya* on *Vaksanga* in Group A: The mean before treatment was 1.53 which was reduced to 0.33 after the treatment. The total effect of therapy provided statistically highly significant ( $P < 0.001$ ) result with “*t*” value of 4.94.

Effect of *Shirobasti* on *Vaksanga* in Group B: The mean before treatment was 1.40 which was reduced to 0.60 after the treatment. The total effect of therapy provided statistically significant ( $P < 0.01$ ) result with “*t*” value of 4 [Table 7].

Effect of *Nasya* on *Karna vedana* in Group A: The mean before treatment was 0.73 which was reduced to 0.07 after the treatment. The total effect of therapy provided statistically significant ( $P < 0.01$ ) result with “*t*” value of 3.16.

Effect of *Shirobasti* on *Karna vedana* in Group B: The mean before treatment was 0.53 which was reduced to 0.13 after the treatment. The total effect of therapy provided statistically insignificant ( $P < 0.10$ ) result with “*t*” value of 2.10 [Table 8].

Effect of *Nasya* on *MukhaVakrata* in Group A: The mean before treatment was 1.4 which was reduced to 0.87 after the treatment. The total effect of therapy provided statistically significant ( $P < 0.01$ ) result with “*t*” value of 4.

Effect of *Shirobasti* on *MukhaVakrata* in Group B: The mean before treatment was 1.6 which was reduced to 1.2 after the treatment. The total effect of therapy provided statistically significant ( $P < 0.01$ ) result with “*t*” value of 3.06 [Table 9].

Effect of *Nasya* on *Akshi nimesha asamarthya* in Group A: The mean before treatment was 1.67 which was reduced to 0.73 after the treatment. The total effect of therapy provided statistically highly significant ( $P < 0.001$ ) result with “*t*” value of 4.53.

Effect of *Shirobasti* on *Akshi nimesha asamarthya* in Group B: The mean before treatment was 1.67 which was reduced to 1.07 after the treatment. The total effect of therapy provided statistically significant ( $P < 0.01$ ) result with “*t*” value of 3.67 [Table 10].

Effect of *Nasya* on *Lalata vali nasha* in Group A: The mean before treatment was 1.47 which was reduced to 1.07 after the treatment.

The total effect of therapy provided statistically significant ( $P < 0.01$ ) result with “*t*” value of 3.05.

Effect of *Shirobasti* on *Lalata vali nasha* in Group B: The mean before treatment was 1.53 which was reduced to 0.67 after the treatment. The total effect of therapy provided statistically highly significant ( $P < 0.001$ ) result with “*t*” value of 6.5 [Table 11].

Effect of *Nasya* on *Lalasarava* in Group A: The mean before treatment was 1.47 which was reduced to 0.40 after the treatment. The total effect of therapy provided statistically significant ( $P < 0.01$ ) result with “*t*” value of 4.

Effect of *Shirobasti* on *Lalasarava* in Group B: The mean before treatment was 1.00 which was reduced to 0.30 after the treatment. The total effect of therapy provided statistically significant ( $P < 0.02$ ) result with “*t*” value of 2.9 [Table 12]. Table 13 shows The comparative efficacy of the therapies in Group A and Group B using unpaired “*t*” test. Table 14 shows Overall effect of therapy on different parameter in Group A. Table 15 shows Overall effect of therapy on different parameter in Group B.

#### 5. DISCUSSION

Person is identified well with his expression and capacity of interaction with language. The disability of both is seen in Ardit.<sup>[7]</sup> It is a severe blow to the sufferer’s life. The patients not only suffer physically but also get psychologically disturbed. The suffering person becomes anxious and the tries to avoid exposure to society.<sup>[8]</sup> The subjects suffering from Ardit (Facial Palsy) fulfilling the criteria of selection of present study were selected for the trial. The present clinical study contains sample size of 30 subjects. They were divided into two groups as Group A and Group B, each having 15 subjects, all the 30 subjects were given *Amapachana* with *Avipattikara Choorna*, and Group A subjects were treated by *Nasya* with *Mahamasha Taila* for 7 days and Group B subjects were subjected to *Shirobasti* with *Ksheerabala Taila* for 7 days. Subjects of both the groups were given *Brihat Vata Chintamani Rasa* as *Shamanoushadhi* for a period of 30 days with *Dhanadhanayanadi kwatha* as *Anupana*. Follow-up period was 1 month. The males are more affected with the disease *Pakshaghata* due to cerebrovascular accident. *Dashamoola Kashaya*, *Yavanyadi Kalka*, and *Sahacharadi Taila Vasti* along with *Tab. Vatagajankusha Rasa* and *Maha Manjisthadi Kashaya* as *Anupana* internally and *Karpasathyadi Taila* used in *Nasya* along with *Tab. Vatagajankusha Rasa* and *Maha Manjisthadi Kashaya* as *Anupana* internally significantly improves the signs and symptoms of *Pakshaghata* as well as the activities of daily livings thereby making better the quality of life of the patients. *Vasti* along with *Tab. Vatagajankusha Rasa* and *Maha Manjisthadi Kashaya* as *Anupana* internally provided highly significant results in three parameters of assessment, that is, motor function of upper and lower extremities and gait and not significant in co-ordination (Finger-Finger test) and reflexes. Whereas in other parameters, *Vasti* showed significant results. *Karpasathyadi Taila Nasya* along with *Tab. Vatagajankusha Rasa* and *Maha Manjisthadi Kashaya* as *Anupana* internally provided highly significant results in motor function of lower extremity, orientation, and significant results in motor function of upper extremity, level of consciousness, and gait. Whereas in other parameters, *Nasya* showed insignificant results.

## 6. CONCLUSION

Hence, better result can be obtained with *Vasti with Dashamoola Kashaya, Yavanyadi Kalka*, and *Sahacharadi Taila* along with Tab. *Vatagajankusha Rasa* and *Maha Manjisthadi Kashaya* as Anupana internally. *Vasti* can help in better improvement of *Pakshaghata* symptoms. Considering the deep-seated nature of the disease, its chronicity, involvement of *Shiro Marma*, a longer duration of therapy may be required for even more admirable results. Statistically not significant result seen in some features, suggest that continued requirement of the treatment to arrest the progression of the vitiation of the *Vata Dosha*.

## 7. ACKNOWLEDGMENTS

Nil.

## 8. AUTHORS' CONTRIBUTIONS

All the authors contributed equally to the design and execution of the article.

## 9. FUNDING

Nil.

## 10. ETHICAL APPROVALS

The study was approved by the Institutional Ethical Committee of Ayurveda Mahavidhyala Hubli.

## 11. CONFLICTS OF INTEREST

Nil.

## 12. DATA AVAILABILITY

This is an original manuscript, and all data are available for only review purposes from the principal investigators.

## 13. PUBLISHERS NOTE

This journal remains neutral with regard to jurisdictional claims in published institutional affiliations.

## REFERENCES

1. Available from: <https://www.sciencedirect.com/topics/medicine-and-dentistry/hemiplegia> [Last accessed on 2024 Feb 12].
2. Vinod KV, Verma SP, Karthikeyan B, Kishore A, Dutta TK. Cerebral infarction leading to hemiplegia: A rare complication of acute pancreatitis. *Indian J Crit Care Med* 2013;17:308-10.
3. Donkor ES. Stroke in the 21<sup>st</sup> century: A snapshot of the burden, epidemiology, and quality of life. *Stroke Res Treat* 2018;2018:3238165.
4. Shukla AV, Tripathi RV, editor. Charaka samhita of agnivesha. In: 'Vaidyamanorama' Hindi Commentary. Ch. 28/53-54. Delhi: Chaukhamba Sanskrit Pratishthan; 2012.
5. Shukla AV, Tripathi RV, editor. Charaka samhita of agnivesha. In: 'Vaidyamanorama' Hindi Commentary. Ch. 28/87-88. Delhi: Chaukhamba Sanskrit Pratishthan; 2012.
6. Available from: <https://www.ninds.nih.gov/health-information/public-education/know-stroke/health-professionals/nih-stroke-scale> [Last accessed on 2024 Feb 12].
7. Indu S, Vijayan R, Sukeshan S. Sadyovamana - An effective therapy in the management of Bell's palsy - A case report. *J Ayurveda Integr Med* 2022;13:100634.
8. Makwana N. Disaster and its impact on mental health: A narrative review. *J Family Med Prim Care* 2019;8:3090-5.

### How to cite this article:

Gupta A. Effect of Kalavasti and Nasya with Karpasathyadi Taila in the Management of Pakshaghata W. S. R to Hemiplegia-A Comparative Clinical Study. *IRJAY*. [online] 2024;7(4):14-22.

Available from: <https://irjay.com>

DOI link- <https://doi.org/10.48165/IRJAY.2024.70403>

**Table 1:** Age wise distribution

Age group	No. of Pt. in Group A	No. of Pt. in Group B	Total	%
20–30 Year	01	01	02	05
31–40 Year	00	02	02	05
41–50 Year	06	08	14	35
51–60 Year	13	09	22	55

**Table 2:** Sex-wise distribution

Sex	Group A	Group B	Total	%
Male	18	11	29	72.5
Female	02	09	11	27.5

**Table 3:** Affected side-wise distribution

Affected side	Group A	Group B	Total	%
Right	08	12	20	50
Left	12	08	20	50

**Table 4:** Presence of facial paralysis-wise distribution

Facial paralysis	Group A	Group B	Total	%
Present	06	10	16	40
Absent	14	10	24	60

**Table 5:** Presence of lakshana-wise distribution

Lakshana	Group A	Group B	Total	%
<i>Karmahani</i>	20	20	40	100
<i>Vak Stambha</i>	14	11	25	62.5
<i>Sira Sankocha</i>	10	09	19	47.5
<i>Sandhibandhana Vimokshana</i>	05	07	12	30
<i>Ruja</i>	14	13	27	67.5
<i>Sira Snayu Visosha</i>	11	07	18	45
<i>Vichetana</i>	11	10	21	52.5

**Table 6:** Effect of therapies on Mukha parshwa greevavedana

	Group A		Group B	
	BT	AT	BT	AT
Mean	0.80	0.13	0.80	0.27
Difference Mean	0.67		0.53	
SD (±)	1.15	0.44	1.21	0.60
Difference SD	0.71		0.61	
SE (±)	0.30	0.11	0.31	0.15
Difference SE	0.19		0.16	
<i>t</i> -value	2.87		2.48	
<i>P</i> -value	<i>P</i> <0.02		<i>P</i> <0.05	
Remarks	Significant		Significant	

**Table 7:** Effect of therapies on *Vaksanga*

	Group A		Group B	
	BT	AT	BT	AT
Mean	1.53	0.33	1.40	0.60
Difference mean		1.20		0.80
SD ( $\pm$ )	1.25	0.67	1.30	0.74
Difference SD		0.58		0.56
SE ( $\pm$ )	0.32	0.17	0.34	0.19
Difference SE		0.15		0.15
<i>t</i> -value		4.94		4
<i>P</i> -value		$P<0.001$		$P<0.01$
Remarks		Highly significant		Significant

**Table 8:** Effect of therapies on Karna vedana

	Group A		Group B	
	BT	AT	BT	AT
Mean	0.73	0.07	0.53	0.13
Difference mean		0.66		0.40
SD ( $\pm$ )	0.96	0.37	0.99	0.35
Difference SD		0.59		0.64
SE ( $\pm$ )	0.25	0.10	0.26	0.09
Difference SE		0.15		0.17
<i>t</i> -value		3.16		2.10
<i>P</i> -value		$P<0.01$		$P<0.10$
Remarks		Significant		Insignificant

**Table 9:** Effect of therapies on *MukhaVakrata*

	Group A		Group B	
	BT	AT	BT	AT
Mean	1.4	0.87	1.6	1.2
Difference Mean		0.53		0.4
SD ( $\pm$ )	0.51	0.70	0.51	0.68
Difference SD		0.19		0.17
SE ( $\pm$ )	0.13	0.18	0.13	0.18
Difference SE		0.05		0.05
<i>t</i> -value		4		3.06
<i>P</i> -value		$P<0.01$		$P<0.01$
Remarks		Significant		Significant

**Table 10:** Effect of therapies on *Akshi nimesha asamarthya*

	Group A		Group B	
	BT	AT	BT	AT
Mean	1.67	0.73	1.67	1.07
Difference Mean		0.94		0.60
SD ( $\pm$ )	0.49	0.46	0.49	0.59
Difference SD		0.03		0.10
SE ( $\pm$ )	0.13	0.12	0.13	0.15
Difference SE		0.01		0.02
<i>t</i> -value		4.53		3.67
<i>P</i> -value		$P<0.001$		$P<0.01$
Remarks		Highly significant		Significant

**Table 11:** Effect of therapies on Lalata vali nasha

	Group A		Group B	
	BT	AT	BT	AT
Mean	1.47	1.07	1.53	0.67
Difference Mean		0.40		0.86
SD (±)	1.46	0.88	1.06	0.72
Difference SD		0.58		0.34
SE (±)	0.38	0.23	0.27	0.19
Difference SE		0.15		0.08
t-value		3.05		6.5
P-value		P<0.01		P<0.001
Remarks		Significant		Highly Significant

**Table 12:** Effect of therapies on Lalasrava

	Group A		Group B	
	BT	AT	BT	AT
Mean	1.47	0.40	1.00	0.30
Difference Mean		1.07		0.70
SD (±)	1.30	0.63	1.31	0.72
Difference SD		0.67		0.59
SE (±)	0.34	0.16	0.34	0.19
Difference SE		0.18		0.15
t-value		4		2.9
P-value		P<0.01		P<0.02
Remarks		Significant		Significant

**Table 13:** The comparative efficacy of the therapies in Group A and Group B using unpaired “t” test

S. No.	Parameters of assessment	No. of Pts	Group A			Group B			“t”	P-value	Remarks
			Mean	SD (±)	SE (±)	Mean	SD (±)	SE (±)			
1	<i>Mukha parshwa greevavedana</i>	30	0.67	0.90	0.23	0.53	0.83	0.22	0.42	>0.10	NS
2	<i>Vaksanga</i>	30	1.20	0.94	0.24	0.80	0.77	0.20	1.27	>0.10	NS
3	<i>Karna vedana</i>	30	0.66	0.82	0.21	0.40	0.74	0.19	0.94	>0.10	NS
4	<i>MukhaVakrata</i>	30	0.53	0.52	0.13	0.40	0.51	0.13	0.72	>0.10	NS
5	<i>Akshi nimesha asamarthya</i>	30	0.94	0.80	0.21	0.60	0.63	0.16	1.27	>0.10	NS
6	<i>Lalata vali nasha</i>	30	0.40	0.51	0.13	0.86	0.52	0.13	2.50	>0.02	S
7	<i>Lalasrava</i>	30	1.07	1.03	0.27	0.70	0.90	0.23	1.13	>0.10	NS

**Table 14:** Overall effect of therapy on different parameter in Group A

General symptoms	%	Over all relief
<i>Mukhaparshwa greevavedana</i>	83.3	Marked Relief
<i>Vaksanga</i>	78.2	Marked Relief
<i>Karna vedana</i>	90.9	Marked Relief
<i>MukhaVakrata</i>	38.09	Mild Relief
<i>Akshinimesha asamarthya</i>	56	Moderate Relief
<i>Lalata vali nasha</i>	27.27	Mild Relief
<i>Lalasrava</i>	72.72	Moderate Relief



**Table 15:** Over all effect of therapy on different parameters in Group B

<b>General symptoms</b>	<b>%</b>	<b>Over all relief</b>
<i>Mukha parshwa greevavedana</i>	66.6	Moderate Relief
<i>Vaksanga</i>	57.14	Moderate Relief
<i>Karna vedana</i>	75	Moderate Relief
<i>MukhaVakrata</i>	26	Mild Relief
<i>Akshi nimesha asamarthya</i>	36	Mild Relief
<i>Lalata vali nasha</i>	56.52	Moderate Relief
<i>Lalasarava</i>	66.66	Moderate Relief