



Research Article

ROLE OF AVAPEEDANA NASYA IN PAKSHAGHATA – A PILOT STUDY

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ABSTRACT

Pakshaghta is one among the *Vatavyadhis*. It similar to biomedical cerebrovascular condition called 'stroke'. The *Lakshanas* include *Ruja*, *Vakstambha* etc. Its types are *Kaphanubandha* and *Pittanubandha*. Even though *Pakshaghta* is a *Vata vyadhi* and mentioned in the *Nanatmaja Vatajavikaras* of *Charaka*, it is not a *Shuddha vataja* condition. There is *Samsarga* of *Pitta and Kapha*, clearly mentioned by *Susrutha* and *Madhava nidana*. In all the above explanations it is clear that *Raktadushti* leading to *Vata prakopa* is the underlying cause of the disease. Third most important cause for death worldwide is Cerebrovascular accidents and one among every 10 deaths is due to acute stroke. Signs and symptoms of acute stroke can be taken as *Pakshaghta*, which is one among 80 types of *Nanatmaja Vata vikaras*, since *Kevalavata vyadhis* are difficult to cure Ayurveda is showing global opportunities as the patients suffer from physical disability even after the latest treatment. So here is an effort is done to show the role of *Avapeedana nasya* in the management of *Pakshaghta*. The data of 6 patients was collected irrespective of sex and religion. Statistical analysis done by using paired 't' test which has shown highly significant result.

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INTRODUCTION

The term *Pakshaghta* means, paralysis of one half of the body. Where '*Paksha*' denotes right or left half of the body and '*Aghata*' or paralysis denotes impairment of *Karmendriya*, *Gyanendriya* and *Manas*. *Gyanendriyas* considered as part of *Sangnavaha srotas* (sensory system) and *Karmendriya* considered as part of *Cheshtavaha srotas* (motor system) and *Manas* is supposed to control and guide the both.^[1]

The prevalence of stroke ranges between 1.8% in rural areas and 9.4% in urban areas. Worldwide 15 million people suffer a stroke each year, one third die and one third are left permanently disabled.^[2] *Acharya Sushruta* while explaining about the *Chikitsa* of *Pakshaghta*^[3] has quoted that it should be treated as *Aakshepaka*, where *Teekshna Avapeedana nasya* has been mentioned and regarding the *Teekshna Avapeedana nasya dravyas*, references available in *Trimarmeeya Adhyaya*^[4] of *Charaka*. Hence *Avapeedana nasya* was

done in 6 patients and statistical analysis done with paired 't' test.

AIMS AND OBJECTIVES

To evaluate the efficacy of *Avapeedana nasya* in the management of *Pakshaghta*.

MATERIALS AND METHODS

Selection of patients

Patients

In the present study, 6 patients of *Mada*, *Moorcha*, *Sanyasa* coming to the OPD and IPD of D.G.M Ayurvedic College and Hospital were randomly selected irrespective of their age, sex, caste, religion, educational and socio-economic status. A detailed medical history was taken as per proforma and necessary investigations were done.

Drugs

The drugs taken for *Avapeedana nasya* were *Tulasi*, *Shunti*, *Maricha*, *Pippali* (*Trikatu*),

Yastimadhu and *Dugdha* as mentioned by *Charaka* in *Avapeedana Nasya Dravyas*.

Avapeedana nasya

4- 6 drops in each nostril freshly prepared every time.

Ingredients

- *Shunti (Zingiber officinale)*^[5]
- *Maricha (Piper nigrum)*^[6]
- *Pippali (Piper longum)*^[7]
- *Yastimadhu (Glycyrrhiza glabra)*^[8] - 2 pinch
- *Tulasi (Ocimum tenuiflorum)*^[9]- 3-4 leaves
- Milk 2 tsp

Method of Preparation

3-4 fresh leaves of *Tulasi* collected and made into *Kalka* (paste) using *Khalva yantra* (mortar) to this paste 2 pinch of *Yastimadhu*, 1 pinch of *Trikatu churna* are added and mixed thoroughly and finally 2 tsp cow's milk is added and filtered properly.

Criteria for Diagnosis

- Clinical features of *Pakshaghata* like *Vaksangha* (difficulty to speak), *Chestanasha* (loss of movements), *Manasikachestahani* (loss of mental functions), *Santapa* (fever), *Tandra*, *Aalasya*.

Criteria for Rejection of the Patients

- Pregnant woman
- Patients suffering from Brain tumors specially in SOL, Cerebrum, midshaft and Malignancy
- Patients undergoing other *Panchakarma Shodhana* procedures (purifactory procedures).

Criteria of Assessment

- Classical signs and symptoms of *Pakshaghata* like *Vaksangha* (difficulty to speak), *Chestanasha* (loss of movements), *Manasikachestahani* (loss of mental functions), *Santapa* (fever).
- A clinical criterion for the assessment was done using Modified Barthel Index (MBI)^[10] Scoring.
- This helps us to know the level of Dependency of the patient before and after treatment.

Statistical Analysis

The pre test and post test results will be statistically analyzed by using Paired t- test

Grading of Symptoms

1. *Vaksangha/Aspashtavak* (loss of speech/ difficulty to speak)

- Severe - 3
- Moderate - 2
- Mild-1
- Absent - 0

2. *Chestanasha* (loss of movements)

- Severe - 3
- Moderate- 2
- Mild -1
- Absent - 0

3. *Manasika chesta hani*

- Severe - 3
- Moderate - 2
- Mild - 1
- Absent - 0

4. *Santapa*

- Severe - 3
- Moderate - 2
- Mild - 1
- Absent - 0

5. *Tandra*

- Severe - 3
- Moderate - 2
- Mild - 1
- Absent - 0

6. *Alasya*

- Severe - 3
- Moderate - 2
- Mild - 1
- Absent - 0

Table 1: Score of Modified Barthel Index

Item	Unable to perform task	Substantial help required	Mode of help Required	Minimal help required	Fully independent
Personal hygiene	0	1	3	4	5
Bathing self	0	1	3	4	5
Feeding	0	2	5	8	10
Toilet	0	2	5	8	10
Stair climbing	0	2	5	8	10
Dressing	0	2	5	8	10
Bowel control	0	2	5	8	10
Bladder control	0	2	5	8	10

Ambulation	0	3	8	12	15
Wheel chair	0	1	5	4	5
Chair/bed	0	3	8	12	15

Table 2: Results of the patients before and after treatment

S.No	IPD	Vaksanga		Chestanasha		Manasika chestahani		Santapa		Tandra		Alasya	
		BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
1	1805	3	1	3	1	3	1	3	1	2	1	3	1
2	23957	3	1	3	2	3	1	3	1	2	1	3	1
3	2402	2	0	2	0	2	1	2	1	0	0	3	1
4	2494	1	0	2	0	2	1	2	1	2	0	3	0
5	2520	3	1	2	1	2	1	2	0	0	0	3	0
6	3003	3	0	3	1	3	1	3	1	0	0	3	1

Table 3: Showing statistical Analysis of symptoms and signs by paired t- Test

S.No	Symptoms	Mean		% of relief	SD	SE	T - Value	P- Value	Remarks
		BT	AT						
1	Vaksangha	2.5	0.5	80%	0.63	0.25	7.74	< 0.001	HS
2	Chestanasha	2.5	0.8	68%	0.51	0.21	7.90	< 0.001	HS
3	Manasika chesta nivrutti	2.5	1.0	60%	0.54	0.22	6.70	< 0.001	HS
4	Santapa	2.5	0.8	66.8%	0.51	0.21	7.90	< 0.001	HS
5	Tandra	1.0	0.3	70%	0.81	0.33	2.1	< 0.01	NS
6	Alasya	3.0	0.6	78%	0.51	0.21	11.0	< 0.001	HS

Table 4: Showing statistical Analysis of MBI by paired t- Test

Sl no	IPD No	Mean		% of relief	SD	SE	T - Value	P- Value	Remarks
		BT	AT						
1	1805	0.0	1.9	80%	0.7	0.2	9.0	>0.01	NS
2	23957	0.0	5.0	68%	1.7	0.5	9.5	>0.001	HS
3	2402	0.0	7.6	60%	2.8	0.8	9.0	>0.001	HS
4	2494	0.0	5.0	66.8%	1.7	0.5	9.5	>0.001	HS
5	2520	0.0	1.9	70%	0.7	0.2	9.0	>0.01	NS
6	3003	0.0	5.0	78%	1.7	0.5	9.5	>0.001	HS

Table 5: Showing sets out the dependency needs

Dependency Needs	MBI Scores	Dependency level	Hours of help required
1	0-24	Total	27
2	25-49	Severe	23.5
3	50-74	Moderate	20.0
4	75-90	Mild	13
5	91-99	Minimal	<10

Among the 6 patients,

2 of them score 78 so they fall under category 4

2 of them score 55 so they fall in the category 3

2 of them score 95 so they fall in the category 5

Observation and Results

- In the present study, maximum number of patients i.e., 50% of them belongs to the age group of 60-70 followed by 33.3% belong to 50-60 age group and 16.6% i.e., 1 patient belong to age of 40-50 years.
- Out of six patients, 5 patients (83.3%) were males and 1 patient (16.6%) was female.
- Out of six patients, 3 patients (50%) were Hindu and 3 patients (50%) were Muslim.
- 3 patients (50%) belong to poor economical status and 3 patients (50%) belong to middle class.
- Out of 6 patients, 3 patients (50%) were labor and 3 patients (50%) were belongs to sedentary.
- Out of 6 patients, 2 patients (33.3%) were vegetarian and 4 patients (66.6%) were belonging to non-vegetarian diet.

Observations on Signs and Symptoms of the Disease

- Experimental group showed highly significant effect in relieving *Vaksangha* (80%), *Chestanasha* (68%), *Manasikachesta hani* (60%), *Santapa* (66.8%), *Tandra* (70%), *Alasya* (78%).
- Modified Barthel Index also showed significant result after treatment. Among six patients who were completely dependent Before treatment, their dependency level was markedly reduced like 2 required 13 hours of help and 2 of them required 20 hours of help per week and 2 of them required less than 13 hours of help.

Probable Mode of Action

- Among the *Dravyas* used in *Avapeedana nasya*, *Trikatu* and *Tulasi* possess *Katu rasa*, *Ushna veerya* and *Katu vipaka* helps to relieve the *Mastishkyagata Avarana*.
- *Yastimadhu* and *Dugdha* possess *Madhura rasa*, *Sheeta veerya* and *Madhura vipaka* helps to combat the *Mastishkyagata rakta vikruti*. There by helps to relieve the signs and symptoms of *Pakshaghata*.

DISCUSSION

- While administering *Nasya* to the patients classical steps were not followed because patients will not be co-operative and it is an emergency condition.
- Each and every time fresh *Nasya dravya* was prepared and administered.

- Maximum days of administration of *Nasya dravya* was 21 days and repeated after giving a gap of 15 days and as per the need.
- *Nasya* is not administered when the patient was undergoing other *Shodhana* procedure.
- No complications were observed during the administration.
- *Nasya dravyas* are easily available and cost effective to the patient.
- Effect of the *Nasya* was observed over the sensory system on third day in maximum number of patients.
- As and how the *Nasya* was continued even its effect was noticed over motor functions.
- When compared, *Avapeedana Nasya* along with modern medication was more effective than modern medicine alone.

CONCLUSION

- *Pakshaghata* is an alarming disease in the modern era.
- *Karma kshaya*, *Balakshaya*, *Vaksangha*, *Manasikachesta hani*, *Santapa*, *Tandra* and *Alasya* of one half of the body is the cardinal feature of *Pakshaghata*.
- *Acharya Sushruta* and *Charaka* have mentioned different *Ashulabhakari Upayas* for the above condition among which *Avapeedana Nasya* is one.
- We have observed in folklore practice doing *Avapeedana nasya* which shows significant results.
- *Avapeedana nasya* is cost effective and easy to administer.
- The *Dravyas* used in *Avapeedana nasya* being *Ushna Teeksha* helps to relieve obstruction and *Yastimadhu* acts as *Vruna ropaka* there by subsiding the symptoms.
- All the six patients responded well for the *Nasya*.

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