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Research Article

A NON-RANDOMIZED OBSERVATIONAL CLINICAL STUDY ON ĀYURVEDIC MANAGEMENT OF PAKSHAGHATA

Jigisha Patel [1]*, Rajiv Amal [2], M V Patel [3], S N Gupta [4], K B Patel [5]
[1]Reader, Department of Panchkarma, J.S. Ayurveda Mahavidhyalaya, Nadiad, Maharashtra, India
[2]Lecturer, Department of Swasthavrutta, J.S. Ayurveda Mahavidhyalaya, Nadiad, Maharashtra, India
[3]Reader, Department of Kayachikitsa, J.S. Ayurveda Mahavidhyalaya, Nadiad, Maharashtra, India
[4]Professor, Department of Kayachikitsa, J.S. Ayurveda Mahavidhyalaya, Nadiad, Maharashtra, India
[5]Professor, Panchakarma Department, J.S. Ayurveda Mahavidhyalaya, Nadiad, Maharashtra, India
*Corresponding Author Email: jigishaamal@gmail.com

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ABSTRACT

Lack of control due to complete loss of communication preventing any willed movement is known as paralysis. Hemiplegia is a type of paralysis in which any of the side is paralyzed which is described as pakshaghata in the group of vatavyadhis in Ayurveda. Though classical descriptions mentions involvement of vatain half lateral of the body, the origin of the disease is shirah (brain) which is one of the trimarmas. Sira and snayu are the main dushyas in pakshaghata. In P.D. Patel Āyurveda Hospital, Nadiad, India, the patients of this condition are treated with a multimodal approach consisting of abhyanga, svedana, mriduvirecana followed by Bastis, nasya and shirobastis together with oral administration of antivata preparations such as ashvagandhachurna, balamulakvatha and narayanatailam. An observational clinical study was conducted on 33 patients of pakashaghata who were treated with above mentioned treatment plan. The results showed significant improvement in various clinical outcomes including motor functions.

Keywords: Trimarma, Pakshaghata, Virecana, Bastis, Nasya

INTRODUCTION

Pakshaghata (paralysis*)* is one of the vatavyadhis.[1] Sushruta categorized pakshaghata (paralysis) under mahavatavyadhi chikitsitam.[2] The term Pakshaghata literally means Aghata (paralysis) of a "Paksha" (right or left lateral half of the body). The clinical features are vaksanga (slurring of speech), sandhi-bandhashaithilya (weakness of muscles), vaktradavakra (mouth deviation), sphoorana of jihva (fasciculation of the tongue), cheshtanivruti *(*impairment of motor function).[3]Pakshaghata is the loss of muscle function in any of the lateral half of the body. If we analyze the pathogenesis we may find that there is avarana or dhatuksaya in the shirah which is seat of karmendryas and jnanendriyas. The strategy of the treatment must be aimed to remove the avarana on the path of vata and to correct the damages in the dhatus in the shirah. Thus we plan a treatment on these principles which includes abhyanga, svedana, mriduvirecana followed by bastis, nasya and shirobastis together with oral administration of anti vata preparations such as ashvagandhachurna, balamulakvatha and narayanatailam.

AIMS AND OBJECTIVES

1. To evaluate role of multimodal treatment approach in the management of pakshaghata.

MATERIALS AND METHODS

33 consecutive cases with the classical picture of pakshaghata who fulfilled the inclusion criteria were selected from the OPD of kayachikitsa and panchakarma department, P.D.Patel Ayurveda Hospital, Nadiad, irrespective of age, sex, caste, religion, occupation, etc. The selected patients were hospitalized and treated in IPD. Ethical clearance was obtained from the institute.

CRITERIA OF DIAGNOSIS

Patients were diagnosed on the basis of signs and symptoms of pakshaghatai.e.motor dysfunction of any of the paksa (lateral half).

LABORATORY INVESTIGATIONS

All the patients were subjected to

- Routine blood investigations such as Hb%, TLC, DLC, ESR etc.
- Blood glucose levels and lipid profile
- Routine and microscopic examination of urine.

EXCLUSION CRITERIA

- Patients having bed sores
- Age above 70 years
- Lost bowel and bladder control
- Paralysis complicated with heart disease
- Comatose and unconscious patients
- Intracranial infections such as meningitis
- Congenital defects- diffuse sclerosis, cerebral agenesis etc. and other major illness.

MANAGEMENT OF THE PATIENTS

Plan of the treatment

- Abhyanga (narayanatailam) Baspasvedana (nirgundipatra) for two consecutive days
- Virecana with erandasneha (30 to 45 ml according the koshtha and the bala of the patient)
- Sansarjana karma for 2-3 days
- Niruhabasti with dashmualkvatha in a classical way.
- Matrabastis with 40-50ml narayanataila according to tolerance of the patient immediately after supper.
- Niruhabastis intermittently when patients inability to hold matrabasti, was observed.
- In this way 30 bastis were administered. During these 30 days, abhyanga with narayanataila, svedana with nirgundipatra, shirobasti and nasya with narayanataila were administered (according to tolerance of the patient).
- Following oral medicaments were given during these 30 days-
  - Ashvagandhachurna 3 gm twice with milk
  - Balamualkvatha 40ml added with 20-30 ml of narayanatailam

Patients were provided a diet consisting of antivata, anabhishyandi and nourishing qualities.[4] They were encouraged to perform activities by their own with least possible support of the attendants.
If any patient was taking antihypertensive and or anti diabetic agents, these were continued.

PREPARATION OF MEDICINES

Medicines were prepared under expert supervision strictly adhering to standard operating procedures (SOP) at sunder Āyurveda pharmacy (departmental pharmacy of rasashastra department).

CRITERIA OF ASSESSMENT

The improvement in the patients was assessed on the basis of the criteria given as per Table 1.

Overall assessment criteria of therapy

Overall assessment of the therapy was on the basis of relief found in the patients the basis of the criteria given as per Table 2.

Statistical analysis

The improvement in the patients was assessed on the basis of relief in the clinical features of the disease before treatment and after treatment. Obtained results were analyzed by Students paired' test. The results were interpreted as highly significant if $p<0.001$ and significant if $p<0.05$ or $p<0.01$.[5]

OBSERVATION AND RESULTS

In this study, out of 33 patients, 60% were belonging to 50-70 years of age, 40% were from below 50 years of age. 75.75 % were male, 24.25% were females, and this finding is almost supporting the previously established fact i.e. Prevalence ratio of disease in male are more than female.

In this study, 73.3% of patients were found with regular dietary habits. 73.33% patients were vegetarian. 78.8% patients were taken lavana & katu rasa dominant diet.

Smoking was found as Nidanain 45.45% patients, Chinta was observed in 75.75% patients. Katu Rasa Ahara, TikshnaAhara and UshnaAhara were found in 84.84% subjects.

EFFECT OF THERAPY

Effect on Chief complaints in 33 patients of Pakshghata which was Statistical analysed and given in the Table 3.

Highly significant improvement in facial expression, motor function, sitting from lying down and in walking. Significant result was observed in drooping wrist. There was an in-significant result was found improvement in speech and in finger movement.

The treatment showed marked improvement in 16%, Moderate improvement in 55% and mild improvement in 30% of the patients.

DISCUSSION

Pakshaghata is described under the vatavyadhi group of diseases as vata is the main dosha which leads the pathology. Pathology of the pakshaghata begins with the vataprakopa caused either by avaranaor dhatukshaya. Avarana may also lead to a dhatuksaya causing further advancement of vata vitiation. Hence treatment begins with shodhana with mriduvirechana which can remove the margavarana of vata. Abhyanga with narayanataila and baspasvedana with nirgundipatra are part of purvakarma for mriduvirecana and are also continued as main treatment after it. As a purvakarma abhyanga and svedana produce loosening of the doshas and thus help in detaching them from the sites of their localization. Taila is best among the vata pacifying agents. With the snigdha and usna properties, taila reduces vata and stops further degeneration of the tissues. With its ushna property taila pacifies shita property of vata which is responsible for the contractures and pain in the patients of pakshaghata. Narayanataila is processed with anti vata drugs hence internal use as well as abhyanga with narayanataila is useful to pacify vatadosha. Nirgundi has also anti vata properties hence baspasvedana with nirgundipatrra after abhyanga is also helpful to reduce contractures and pain.

Basti is indicated as a main treatment for the diseases caused by vatadosha.[6] Vata is a main factor for creating marm gata vyadhi.[7] Pakvashaya is the main sight for the vata in the body and pacifying vata in the pakvashaya can pacify vata diseases all over the body. Matrabasti has also a brimhana action on the body which nourishes the degenerated brain tissues and can regenerate them up to some extent. It can increase the functional capacity of the brain tissues which are still not damaged or partially damaged. Hence matrabasti with narayanataila has important role in the treatment of the pakshaghata.

Nasya and shirobasti with narayanataila also causes nourishment in the brain tissues and improve their functional capacity.

Oral medicaments having anti vata properties like balamulakvatha and ashvagandha are also useful to pacify vata, to nourish the tissues and to improve the physical strength of the muscles which is reduced in this disease condition.

Table: 1 Assessment criteria for the disease		
	Symptoms	Score
1	**Speech-**	
	Aphasia	4
	Utter voice	3
	Speaks few words	2
	Speaks with difficulty	1
	Normal speech	0
2	**Facial expression-**	
	Ask the patient to show teeth or to raise eyebrows, smile and to close eyes. Score according to the symmetry of face.	
	Severe weakness, drooling	3
	Moderate loss; asymmetry at rest	2
	Mild weakness; asymmetry on smiling	1
	Normal	0
3	**Motor function**	
	No movements at al	
	Trace movement only	6
	Motion without gravity only	5
	Moves against gravity but not against resistance	4
	Moderate weakness	3
	Mild weakness	2
	Positive drift of arm/leg	1
	Normal	0
4	**Modified Ranking scale**	
	Dead	6
	Severe disability, bedridden, incontinent and requiring constant nursing care and attention	5
	Moderately Severe disability, unable to walk without assistant and unable to attend to own bodily needs without assistant	4
	Moderate disability, requiring some help, but able to walk without assistant	3
	Slight disability, unable to carry out all previous activities, but able to look after own affairs without assistant	2
	No significant disability despite symptoms able to carry out all usual duties and activities	1
	No symptoms at all	0
5	**Drooping wrist**	
	Full drooping	3
	Moderate drooping	2
	Slight drooping	1
	No drooping at all	0
6	**Sitting from lying down**	
	Unable	2
	With support	1
	Without support	0
7	**Walking**	
	Bed ridden	5
	Walks with assistant	4
	Walks with support like stick, wall etc.	3
	Walks with slight help	2
	Walks without support	1
	Walks with speed	0
8	**Finger movements**	
	No movements at all	4
	Slight movements	3
	Unable to hold objects	2
	Able to hold objects with less power	1
	Normal	0

Table: 2: Overall assessment criteria of therapy

0	Unchanged
1-25%	Mild improvement
26-50%	Moderate improvement
51-75%	Marked improvement
76-100%	Complete remission

Table: 3 Statistical analysis of the therapy

Symptoms	Mean			% of imp	S.D.	S.E.	't'	P
	B.T.	A.T.	n					
Speech	2	0.66	33	45.16	1.01	0.18	4.97	>0.05
Facial expression	2.2	1.0	33	20.20	0.89	0.13	3.33	<0.001
Motor function	2.40	1.43	33	41.53	1.047	0.18	5.40	<0.001
Modified ranking scale (debility)	2.82	1.76	33	31.67	1.37	0.19	4.46	>0.05
Drooping wrist	2.3	1.2	33	39.27	1.075	0.19	4.67	<0.01
Sitting from lying down	2.047	0.875	33	44.25	0.99	0.17	5.14	<0.001
Walking	2	0.76	33	39.06	0.79	0.14	5.57	<0.001
Finger movements	2.45	1.5	33	26.0	0.91	0.13	4.76	>0.05

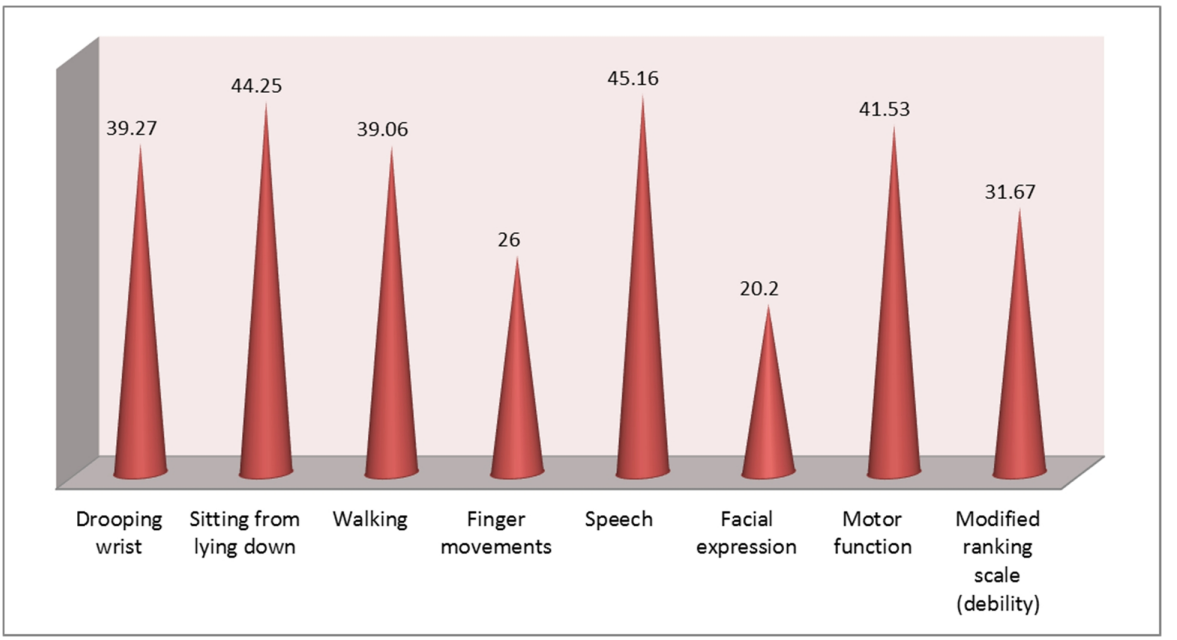

Chart 1: percentage of improvement in symptoms

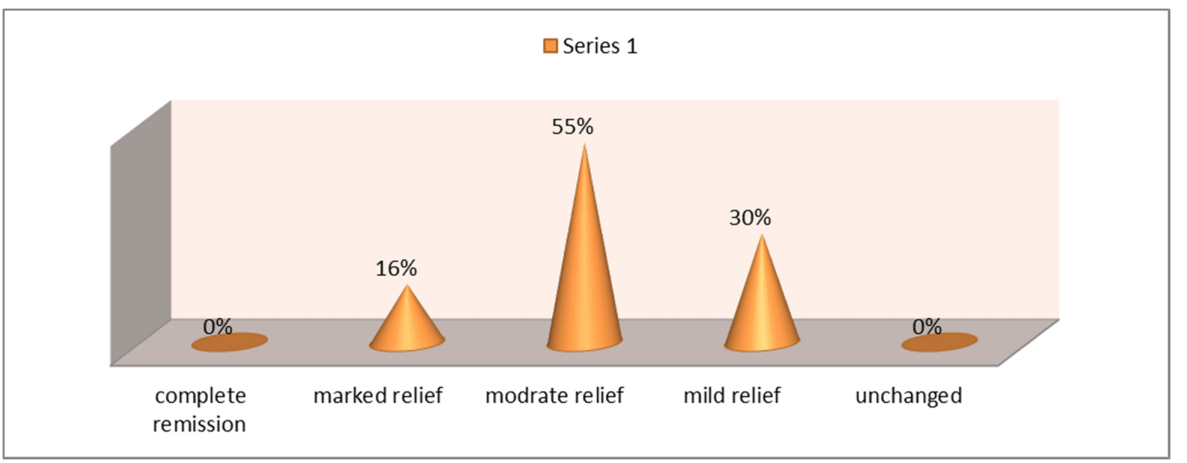

Chart 2: Overall effect of the therapy

CONCLUSION

This is an observational study with that it can be concluded that Ayurvedic management of pakshaghata can give some betterment to the patients and can improve the motor functions. Though absolute recovery is not seen in any of the patient, the improvement which they get creates a positive thinking in them for life as well as for the treatment, which gives them strength to face the challenges more easily. Long follow up and larger number of patients is required for further conclusion.

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