International Journal of Applied Ayurved Research ISSN: 2347- 6362

ROLE OF *PANCHAKARMA* IN THE MANAGEMENT OF *PAKSHAGHATA*: A CASE REPORT

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ABSTRACT

Stroke is a common medical emergency and the second leading cause of death worldwide. In Ayurveda stroke is described as *Pakshaghata*. The present study is a case report on management of Acute Ischemic stroke(Right Pontine Infarct) in a male patient aged about 68years with chief complaints of weakness and loss of function in left upper and lower limb. The case was treated with *Nasya Karma, Sarvanga abhyanga Nadi sweda, Shastika shali pinda sweda* and *Matra basti* and found improvement in carrying out day to day activity. Before treatment Scavandian Stroke scale was 45 and after the treatment the scale was 63 providing symptomatic relief. This reveals that Ayurveda *Panchakarma* modalities can play a significant role in the treatment of *Pakshaghata.*

Keywords *Pakshaghata*, Stroke, *Panchakarma*

INTRODUCTION: The term *Pakshaghata* literally means "paralysis of one half of the body" where "*paksha*" denotes either half of the body and "*Aghata* (paralysis)" denotes the impairment of *Karmendriyas, Gyanendriyas* and *Manas. Gyanendriyas* are considered a part of the sensory system and *Karmendriyas* are considered a part of the motor system. The *Manas* is supposed to control and guide both, *Gyanendriyas* and *Karmendriyas. Pakshaghata* is a *Vatavyadhi* of *Nanatmaja* variety[1]. It can manifest either due to *Dhatukshaya* or *margavarana*[2]. Due to *nidana sevana vata prakopa* occurs which takes *sthana samshraya* in *sira* and *snayu* causing *sira snayu shoshana* leading to *cheshtahani* in half of the body[3]. The cardinal features of *Pakshaghata* include *Chestahani* (impaired motor activity), *Ruja* (pain), *Vakstambha* (slurring of speech), and *Hasta Pada Sankocha*[4]. *Sandhi Bandhavimoksha* (weakness of joints) *Vaktravakratha* (mouth deviation), *Sphoorana of Jihva* (fasciculation of the tongue) may also be associated in some cases. *Marghavaranajanya Pakshaghata* can be correlated with Stroke.

Stroke represents third most common cause of death in developed nations[5]. According to the latest WHO data published in May 2014 Stroke Deaths in India reached 881,702 or 9.94% of total deaths[6]. The prevalence of stroke in India is approximately 200 per 100 000 persons.

Stroke is defined as rapid onset of focal neurological deficit resulting from diseases of the cerebral vasculature and its contents. This disturbance is due to either ischemia or haemorrhage. Pons is the largest component of brainstem located distal to midbrain and proximal to medulla oblongata. Any obstruction to blood supply to the pons, causes pontine infarction, an ischemic type of Stroke. Clinical presentation of pontine infarction can vary, ranging from the classical

crossed syndrome to less common pure motor hemiparesis. Clinical presentation is primarily determined by the anatomical boundaries of the infarcted region and the blood vessels involved[7].

CASE DESCRIPTION

A 68 years old male K/C/O DM and HTN since 2years on regular medication came to our hospital on 6/2/20 with complaints of weakness in left upper and lower limb, inability to walk without support and total loss of movement in left upper limb since 12 days. The subject was a diagnosed case of Cerebrovascular accident.

History:

On 26/01/2020 at around 2 am subject had 3 episodes of vomiting followed by weakness of left upper and lower limb, inability to stand and walk associated with slight deviation in the angle of mouth to right side and slurred speech. He was immediately taken to an allopathic hospital and was diagnosed as a case of Acute Ischemic Stroke for which he was admitted and treated with antiplatelet, anticoagulant, neuro protective and other supportive measures. During his course of stay subject had marginal improvement. The deviation of mouth, dribbling of saliva and slurred speech was reduced.

History of Past illness: Nothing Significant

Medication History: TAB. ECOSPRIN 75 MG(0-1-0)
TAB. AVAS 40MG (0-0-1)
TAB. COLIHENZ –P 800MG (1-0-1)
TAB TELPLUS 40 (1-0-1)
TAB. GLIMISOFT M1 (1-1-1)

Clinical Findings:

Central Nervous System

Higher Mental Function: INTACT
PEARL
No evidence of Facial palsy

Table1. CNS Examination

		Right	Left
Muscle Power	Upper limb	5/5	0/5
	Lower limb	5/5	2/5
Muscle tone		Normal	Hypotonic
Deep Tendon Reflex		Normal	Brisk (2+)
Plantar reflex		Flexor	Extensor

Investigation:

MRI Brain: Hyper acute infarct involving right hemipons (pontine perforator territory), Multifocal irregularity of extracranial and intra cranial arteries and Suspicious left ICA communicating segment aneurysm.

Diagnosis: *Pakshaghata* / Acute Ischemic Stroke Right Hemipons

Therapeutic Intervention:

1. *Sarvanga Abhyanga* with *Maha masha taila* and *Nadi sweda*- 7 days
2. *Nasya* with *Mahamasha taila* – 7 days
3. *Sarvanga Shastika Shali pinda sweda* -8 days
4. *Matra Basti* with *Dhanwantara Kuzumbu* -8 days

Table 2: Intervention

Sl. No.	Date	Treatment	Medicine used	Dose
1.	6/2/20 – 12/2/20	*Sarvanga abhyanga* followed by *Nadi sweda*	*Mahamasha taila*	100ml

2.	6/2/20-12/2/20	*Nasya Karma*	*Maha masha taila*	6 drops
3.	13/2/20-20/2/20	*Sarvanga Shastika Shali Pinda sweda*	*Shastika shali + Balamula ksheera kashaya*	
4.	13/2/20-20/2/20	*Matra Basti*	*Dhanwantara Kuzumbu*	60ml

Follow-up and Outcome Table 3: Assessment: Scandinavian Stroke Scale (SSS)

Domain name		Range of score	BT	AT
Consciousness	Normally conscious Drowsy Reacts to verbal command Stupor (Reacts to pain only) Coma	6 4 2 1 0	6	6
Orientation	Correct for time, place, person Two of these One of these Completely disoriented	6 4 2 0	6	6
6Speech	Normal/no aphasia Speech with less difficult Limited vocabulary Incoherent speech Longer sentences Longer sentences with difficulty More than yes-no but not longer sentences Less Only yes-no Extremely difficult Impossible / Aphasia	10 9 8 7 6 5 4 3 2 1 0	10	10
Eye movements /eyes and head shift	NO gaze palsy/none Gaze palsy/gaze failure Conjugate eye deviation/forced	4 2 0	4	4
Facial palsy	None Slight paresis Present/paralysis or marked paresis	2 1 0	2	2
Gait	Fully normal Walks more than 5min without aids Walks at least 5min without aids Walks more than 5min with aids Walks at least 5min with aids	12 11 10 9 8	6	11

	Walks with only aids	7		
	Walks at least 5min with help of another person	6		
	Walks with help of another person	5		
	Stand with support	4		
	Sits without support	3		
	Sits with support	2		
	Wheel chair	1		
	Bedridden	0		
Arm: motor power/raising	Raises with normal strength/normal	6	0	3
	Raises with reduced strength/possible	5		
	Raises with flexion on elbow/incomplete	4		
	Can move against gravity	3		
	Can move but not against gravity	2		
	Flickering movement	1		
	Paralysis	0		
Hand: motor power/movements	Normal strength/normal	6	0	3
	Skilled	5		
	Reduced strength	4		
	Useful	3		
	Fingertips do not reach palm	2		
	Flickering movement	1		
	Paralysis/useless	0		
Leg: motor power/raising	Normal strength	6	2	5
	Raises against resistance	5		
	Raises with reduced strength	4		
	Raises with flexion of knee/against gravity	3		
	Can move, but not against gravity	2		
	Flickering movement	1		
	Paralysis	0		
Foot Dorsiflexion	Normal	4	2	3
	Against resistance	3		
	Against gravity	2		
	Flickering movement	1		
	Foot drop	0		
Upper limb tone	Normal	5	4	5
	Slight increase catch and release	4		
	Minimal resistance through range following catch	3		
	More marked increase tone through ROM	2		
	Considerable increase in tone, passive movement	1		
	difficult	0		
	Affected part rigid			
Lower limb tone	Normal	5	3	5
	Slight increase catch and release	4		

	Minimal resistance through range following catch More marked increase tone through ROM Considerable increase in tone, passive movement difficult Affected part rigid	3 2 1 0		

OBSERVATION: During the course of *Nasya* and *Sarvanga Abhyanga Nadi Sweda*: Subject developed flickering movement in left thumb by 3rd day of Nasya. He also started walking without support for less than 5 minutes. By the end of 7th day he was able to touch all fingertips to palm, able to walk without support for 10minutes, stared climbing steps with support.

During the course of *Basti* and *Sarvanga Shastika Shali Pinda Sweda*: Subjects walking speed and duration increased and was able to walk without support for about 30minutes. His arm power also increased and was able to move the arm with flexed elbow against gravity.

Observation during follow up: Follow up was done after 16 days of treatment during which subject had become almost independent in feeding, bathing, dressing activities was able to raise arm with reduced strength, can throw a ball. His walking was also improved

DISCUSSION: *Pakshaghata* is a *Vataja Nanatmaja Vyadhi* considered as *Mahavatavyadhi. Acharya Charaka* and *Sushruta* have mentioned *snehana, swedana, mridu virechana, basti karma, murdhni taila* in the treatment of Pakshaghata. Considering the *lakshanas* of *Pakshaghat*a and also *bala, satwa* of the patient *Vatahara* and *Brihmana chikitsa* was planned. Treatment was started with *Sarvanga Abhyanga* and *Nadi sweda* and *Nasya Karma* with *Maha Masha taila. Tarpak Kapha Kshaya* hampers nourishment of *Mastishka* and hence forbid the dual set of *Indriyas* to perform their functions resulting in *Pakshaghata*[8]. *Nasa* being the gateway to *Shira*. The drug administered through nostrils reaches *Shringataka Marma* by *Nasasrota*. Spreads in the *murdha* (brain), reaches *marma* of *Netra* (eye), *Shrotra* (ear), *Kantha* (throat), *Siramukhas* (opening of the vessels, etc.). Scratches the morbid *Doshas* in supra clavicular region and expels them from *Uttamanga*[9]. *Sushruta* has clarified *Shringataka Marma* as a *Sira Marma* formed by the union of *siras* (blood vessels) supplying to nose, ear, eye & tongue. He further points out that injury to this *marma* will be immediately fatal[10]. For *Abhyanga* and *Nasya Mahamasha taila* was used. *Masha* has *Madhura rasa, Snigdha, ushna guna,* alleviates *vatadosha,* is *pushtikara* (strength promoter). *Sandhibandhan Vimoksha,* one of the Symptoms encountered in *Pakshaghata* results due to the affection of *Shleshaka Kapha* and *Snayu*[11]. To nourish the muscles and improve movement *Matra basti* with *Dhanwantara Kuzhumbu* and *Sarvanga Shastika Shali pinda Sweda* was done for 8 days. Acharya Charaka has stressed on *Srotoshudhhi, Vatanulomana* and *Rasayana* in general management of *Avarana. Basti* achieves both the goals i.e. *Vatanulomana* and *Srotoshudhhi. Basti* is treatment of choice for *Madhyama Marga* and to protect *Marmas. Basti* prevents the *sira, snayu vishoshana. Dhanvantara Kuzumbu* is *Vatakaphahara, balya. Shashtika shali pinda Sweda* helps in nourishment of muscles and in improvement of the movements. It is a type of *Brimhana Sweda* (nourishment)

having *Vatahara* (vata alleviating) and *Balya* (Strength promoter) property. Its ingredients like milk and *Shashtika Shali* nourishes and gives strength to muscle tissues. *Bala* gives nourishment to nervous tissues. During application of *taila* the heat is generated which causes vasodialation, because of which the blood circulation improves causing removal of waste products. Improvement in blood circulation helps in nutrition of muscle tissues. It decreases stiffness of muscles and increases strength and flexibility of muscles which helps in improving movements[12].

CONCLUSION: Though *Pakshaghata* is difficult to manage, early intervention of Ayurveda *Panchakarma* treatments maximizes the recovery chances. The classical *Panchakarma* therapies provide best neuro rehabilitation by strengthening and rejuvenating the muscles and the nerves. In the present case the treatment has given maximum relief in signs and symptoms. Patient is doing well with his day to day activities till date.

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Source of support: Nil Conflict of interest: None Declared

Cite this Article as : [Manasa S D et al : Role of Panchakarma in the Management of Pakshaghata - A Case Report] www.ijaar.in : IJAAR VOLUME IV ISSUE XI NOV–DEC 2020 Page No: 1282-1287