



AYURVEDIC MANAGEMENT OF PAKSHAGHATA WITH SPECIAL REFERENCE TO HEMIPLEGIA (CVA) - A CASE STUDY

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ABSTRACT

Pakshaghata is a Vata dosha predominant disease. It has been enlisted among the Eighty Vataja Nanatmaja Vikara and considered as a Mahavatyadhi in Ayurvedic textual literature. Pakshaghata is the condition in which the aggravated vata dosha, invades the shareera dhamanis and disrupts the functions of Sira (Blood vessels), Snayu (Ligaments) and Kandara (Tendon) causing loss of function of one side of the body. It can be compared to Hemiplegia(paralysis) from modern perspective, which is the commonest manifestation of Cerebro Vascular Accident (CVA) or stroke. Stroke or CVA is defined as the rapid onset of focal neurological deficit, resulting from diseases of the cerebral vasculature and its contents, affecting the face, limbs and trunk on one side of the body. Ayurveda offers various treatment modalities for the management of Pakshaghata such as; use of herbomineral formulation, Yoga and Shodhana Chikitsa. Treatment protocol was Snehana, Swedana, Mridu Virechana, Basti Karma, Nasya Karma(Nasal medication), Murdhani Taila (Shirodhara) along with Physiotherapy and internal medication which is mentioned by Acharyas. The present study is a case report on management of stroke of a 64 year male patient with chief complaints of loss of function of the Right upper & lower limb since 1 year. He was a diagnosed case of stroke on the basis of clinical presentation and brain computed tomography scan. The case treated with the Ayurveda medications was found to be effective in providing relief in chief complaints with improvement of overall health of the patient. The recovery was promising and worth documenting.

KEY WORDS: Pakshaghata, Vatyadhi, Hemiplegia, Stroke, Panchakarma, Snehana, Swedana, Virechana, Shirodhara, Shiropichu, Samshamana Aushadi, Physiotherapy.

INTRODUCTION

Pakshaghata is a Vata dosha predominant disease. It has been enlisted among the Eighty Vataja Nanatmaja Vikara and considered as a Mahavatyadhi in Ayurvedic textual literature. The term Pakshaghata is the combination of two words i.e Paksha and Aghata. The word "Paksha" denotes either half of the body and "Aghata" denotes the impairment of Karmendriyas and Gyanendriyas. Karmendriyas are considered as part of the motor system and Gyanendriyas are considered as part of the sensory system. So the term Pakshaghata literally means, "Paralysis of one half of the body". According to Mahasri Charak the Vata dosha get aggravated by various Vataprakopaka Nidana like Virudha Aahara, Atijagarana, Ati Vyavaya, Asruk Srava, Vichesta, Dhatu Kshya, Shoka, Chinta, Diwaswapna, Marmabhighata and Vegasandharana. Then the aggravated vata dosha, invades the shareera dhamanis and disrupts the functions of Sira (Blood vessels), Snayu (Ligaments) and Kandara (Tendon) causing loss of function of one side of the body and initiates pathogenesis of Pakshaghata. Acharya Sushruta explained that Vata Dosha travels in Urdhava Adhoga Tiryaka Dhamani and causes Sandhi Bandhana Moksha that ultimately leads to loss of function in one half of body called Pakshaghata. Prognosis of the disease as mentioned by Sushruta is Sadhya when Vata Dosha associated with other Dosha, Krichhrasadhya when purely Vata is involved and Asadhya when Dhatukshaya is responsible for Pakshaghata .

Pakshaghata can be correlated with the disease Hemiplegia which is the commonest manifestation of Stroke. Stroke is the sudden death of some brain cells due to lack of oxygen when the blood flow to the brain is lost by blockage or rupture of an artery to the brain. Modern science described age, arteriosclerosis, injury, hemorrhage, nutrition imbalance and anxiety as causative factors of disease. The most common symptom of a stroke is sudden weakness or numbness of the face, arm or leg, most often on one side of the body. Other symptoms include: confusion, difficulty in speaking, difficulty in vision with one or both eyes; difficulty in walking, dizziness, loss of balance or coordination. Cerebrovascular accidents(CVA) known as strokes, are divided into two categories: A blockage causes an ischemic stroke, while a blood vessel rupture causes a hemorrhagic stroke. Both types of strokes deprive a section of the brain of blood and oxygen, resulting in the death of brain cells. Ischemic strokes are the most prevalent form, accounting for around 80% of all strokes. According to the World Health Organization, 15 million people suffer stroke worldwide each year, of these, 5 million die and another 5 million are permanently disabled. The prevalence of stroke in India is approximately 200 per 1 lakh people. This disease has posed a great problem to the medical field as far as its treatment is



concerned. Modern science believes that the brain tissues once damaged completely cannot be repaired by the therapies leading to permanent neurological deficit. Hence, the disease has a poor prognosis, making the person disabled and dependent. Chikitsa of Pakshaghata in various Ayurvedic texts included Snehana, Swedana and Mridu Samshodhana firstly then Vasti with Balya and Vatashamaka Aushadha. Nasya, Shiroyasti, Abhyana, Shirodhara, Shiropichu.

CASE REPORT

A 64 years old male patient was clinically diagnosed as a case of **Pakshaghata (Stroke/CVA)** presented with the **chief complaints of Loss of function in right side of the body, Weakness in the both upper and lower limb, Unable to stand and walk, Slurred speech, for one year. It was associated with deviation of angle of mouth to left side, weakness in neck region, unable to move (right side), loss of sensation of the right side of the body, loss of appetite and constipated bowel.**

HISTORY OF PRESENT ILLNESS

The patient was well before one year, then gradually started complaining of weakness in right side of body, difficulty in walking from right side and then unable to walk and loss of sensation of the right side of the body, deviation of angle of mouth to left side, slurred speech,. The patient received modern allopathic treatment for one year but got temporary relief. However, the rate of recovery was so slow that's why the patient approached GAM &H, Puri for further management.

PAST HISTORY

Hypertension from 10 years and taking Tab Telmisarton and Tab Ecospirin for this.

GENERAL EXAMINATION

Appearance: Moderate built
Tongue: Not coated
Pallor, Icterus, Clubbing—Absent.
Skin rashes: absent
Edema: Absent
BP: 130/90mm Hg,
Pulse: 80/ min. Regular,
RR: 18/ min
Temperature: 98.4⁰ F(Afebrile)

SYSTEMIC EXAMINATION

CARDIOVASCULAR SYSTEM:

S1, S2 audible, no murmur.

RESPIRATORY SYSTEM:

Chest B/L symmetrical, trachea centrally placed, normal vesicular breath sound heard.

GASTROINTESTINAL TRACT:

On Per abdomen examination found that abdomen was soft, no tenderness, and no organomegaly.

CENTRAL NERVOUS SYSTEM (CNS):

A) HIGHER MENTAL FUNCTIONS

- The patient was conscious and well-oriented to time, place, and person.
- Both recent and remote memory were intact.
- Speech was slurred, and the intellect was intact.
- All other higher mental functions were intact.

The sensory and motor nerve examinations of all four limbs;

B) SENSORY SYSTEM EXAMINATION:

Left side UL & LL- Normal

Right side UL & LL- Diminished response to Touch and Pain sensation

C) MOTOR SYSTEM EXAMINATION:

Muscle bulk/Nutrition-

Same in both side UL & LL,

No remarkable muscle wasting



Muscle Strength/Power-

UPPER LIMBS

Muscle Strength/Power-	Right	Left
Elbow -flexion	3/5	5/5
Elbow -extension	3/5	5/5
Wrist -flexion	2/5	5/5
Wrist -extension	3/5	5/5
Finger abduction	1/5	5/5

LOWER LIMBS

Muscle Strength/Power-	Right	Left
Hip -Adduction	3/5	5/5
Hip-Abduction	3/5	5/5
Hip-Flexion	3/5	5/5
Hip-Extension	3/5	5/5
Knee-Flexion	2/5	5/5
Knee-Extension	3/5	5/5
Ankle -Dorsiflexion	2/5	5/5
Ankle-Plantarflexion	3/5	5/5

MRC Grading of Power

- Grade 0: No power
- Grade 1: Flicker of contraction only
- Grade 2: Movement with gravity eliminated
- Grade 3: Movements against gravity
- Grade 4: Movements against gravity & some resistance
- Grade 5: Normal power

Muscle Tone-

Right side UL & LL-Sever spasticity – Sever Hypertonia
 Left side UL & LL- Mild spasticity noted during initial phase - Mild Hypertonic

Reflexes

	Left	Right
Biceps reflex	Normal (2+)	Exaggerated (4+)
Triceps reflex	Normal (2+)	Exaggerated (3+)
Knee reflex	Normal (2+)	Exaggerated (4+)
Ankle reflex	Normal (2+)	Exaggerated (3+)
Plantar reflex	Normal	Babinski sign positive

Co-Ordination

Left side UL & LL- Intact (finger nose test, shin heel test performed)
 Right side UL & LL- Unable to do

Gait

Unable to stand and walk without support.

ASTHAVIDHA PARIKSHA

Nadi(Pulse): 80/min, Pitta-Kapha predominant,
 Jiwha(Tongue): Alipta(Non Coated tongue)
 Mala(Stool): Malavadhata(Constipated)
 Mutra(Urine): Prakruta (5-6time/day,
 2-3time/night)
 Shabda(Speech): Aspashta(Slurred Speech)
 Sparsha(Touch): Anusnasheeta,Snigdha
 Drikha(Eye): Samyak
 Akrti(Appearance): Madhyama



DASAVIDHA PARIKSHA

Prakruti(Constitution of body) - vata-kapha

Vikruti(Abnormality of body) :-

Hetu – Chintha

Dosha -Vata, kapha pradhana tridosha

Dushya -Rakta, meda, snayu, sira

Prakruti - Chirakari

Desha -Saadharana

Kaala - Greesma ritu

Bala -Madhyama

Sara(Body tissue) -Madhyama

Samhanana(Compactness of body) -Madhyama

Pramana(Measurement) - Ht-167 cm

Satmya(Suitability) - Madhyama (mamsa rasa, katu, amla, lavana rasa satmya)

Satva(Mental Power) -Avara

Ahara Sakthi(Digestive Power)-

Abvyaharana sakthi -madhyama

Jarana sakthi –Madhyama

Vyayama Sakthi(Physical strength) - Avara

Vaya(Age) – Bruddha

REPORTS OF INVESTIGATIONS

NCCT OF BRAIN - Large hypodense area is seen in left fronto-temporo-parietal region involving basal ganglia, consistent with recent ischemic infarct in left MCA territory.

-Midline shift is 10mm. towards right side seen.

DIAGNOSIS

On the basis of clinical presentation and NCCT of the brain it was diagnosed as case of Stroke (Pakshaghata)

TREATMENT PROTOCOL

Shamana Ausadha

SN	Medicine	Dose	Duration
1.	Br. Vatagajankusa Rasa	1 tab. BD AF with Honey	30 days
2.	Maharasnadi Ks. + Dasamoola Ks.	10 ml +10ml BD BF with ½ cup of LWW	30 days
3.	Manasamitra Vati	1 tab. BD AF	30 days
4.	Aswagandha Malt	10gm BD AF	30 days
5.	Vacha churna + Honey	LA(Buccal cavity)	30 days
6.	Syp. Prmiliv DS	10ml BD BF	15 Days
7.	Panchakola Pachana	20ml BD AF	7 Days
8.	Laxoherb granual	1 tsp OD at bed time with LWW	7 Days
9.	Bramhi tail	LA(Scalp)	30 Days

Panchakarma Therapy

SN	Procedure	Drug used	Duration
1.	Sarvanga Abhyanga	Kottamchukadi Taila	21 Days
2.	Sarvanda Nadi sweda	Dasamoola Kwatha	21 Days
3.	Shiropichu	Aswagandha Churna + Rasna Churna + Kheerabala Taila	10 Days
4.	Snigdha Churna Pinda Sweda	Masha Churna + Bala-Aswagandha Taila	8 days
5.	Kavala	Mahanarayana Taila + Black salt	8 Days
6.	Upanaha (Knee & Shoulder Joints)	Upanaha Churna + Saindhava lavana + Nimbu swarasa	8 Days
7.	Basti (Yoga Basti)	Anuvasana Basti- Sahacharadi Taila(60ml)+ Mahasehna(40ml)+ Saindhava lavana(5gm) Niruha Basti- Honey(60mi) + Saindhava lavan(3gm) + Guggulu tiktaka ghrita(75ml) + Aswagandha kalka(10gm) + Dasamoola kwatha(320ml)	8 Days
8.	Sarvangadhara	Bala-Aswagandha Taila	7 days
9.	Agnikarma	Swarna salaka	8 days



Physiotherapy

Along with Shaman Ausadha, Panchakarma therapy, Physiotherapy like *Cycling, Quadriceps exercise, Shoulder pully, Standing and walking exercise* was also given to the patient which shows remarkable results.

RESULT

The condition of the patient improved gradually along with the course of the treatment. The Strength and Power of both Right upper and lower limb was increased, also Tone of the muscle improved, Deep tendon reflex was normal after the course of treatment.

Assessment of Results

Examination	BT			AT		
Speech	Slurred			Improved		
Muscle Strength (Right side)	UL	Elbow -flexion	3/5	UL	Elbow -flexion	5/5
		Elbow -extension	3/5		Elbow -extension	5/5
		Wrist -flexion	2/5		Wrist -flexion	4/5
		Wrist -extension	3/5		Wrist -extension	4/5
		Finger abduction	1/5		Finger abduction	4/5
	LL	Hip -adduction	3/5	LL	Hip -adduction	4/5
		Hip-abduction	3/5		Hip-abduction	4/5
		Hip-flexion	3/5		Hip-flexion	4/5
		Hip-extension	3/5		Hip-extension	4/5
		Knee-flexion	2/5		Knee-flexion	4/5
		Knee-extension	3/5		Knee-extension	4/5
		Ankle -dorsiflexion	2/5		Ankle -dorsiflexion	3/5
		Ankle-plantarflexion	3/5		Ankle-plantarflexion	4/5
		Muscle Tone	Rt.		Severe Hypertonia	Rt.
	Lt.	Mild Hypertonia	Lt.	Normal		
Reflex	Rt.	Exaggerated	Rt.	Normal		
	Lt.	Normal	Lt.	Normal		
Co-ordination (Rt.)	Unable to do			Improved		
Gait	Unable to stand and walk without support			Improved (Stand & Walk slowly)		

DISCUSSION

Acharya Charak has described Pakshaghata in Vata Nanatmaj Vyadhi and Acharya Sushrut has mention in Mahavatvyadhi and also Acharya Charak & Sushrut has given treatment protocol of Pakshaghata which is Snehana, Swedana, Mridu Virechana, Basti Karma, Murdhani Taila. Abhyanga (local massage) is acting on the channels which are carrying muscle nutrients and waste products in it. It has the property to nourish the superficial and deep muscle tissue and make the joint strong. Skin is one of the sense organs and sites of Vayu. Thus, Snehana straight away treats the Vata Dosha. In present study Kottamchukadi Taila is used for Sarvang Abhyanga which has great Vatakaphahar property. Nadi Swedana (sudation) removes the stiffness of the body parts, facilitates joint mobility, clearing the microchannels that increase the blood circulation, and removes the blockage (excess Vata & Kapha) inbetween the channels. Snigdha Churna Pinda Sweda with Masha Churna & Bala-Aswagandha Taila acts on vitiated vata dosha and strengthened weak muscle tissues & joints. Kavala with Mahanarayana Taila & Black salt stimulates the buccal cavity muscle, Tongue and Larynx to produce smooth and clear speech. Upanaha with Upanaha Churna + Saindhava lavana + Nimbu swarasa reduced the stiffness in the joints and smoothen the movements by eliminating the Kapha dosha. Anuvasana and Niruha Basti was given in yoga Basti formate as Basti is the main line of treatment in Vatavyadhi. Sarvangadhara was given with Bala-Aswagandha Taila to strengthen the weak muscle and different body parts as both Bala and Aswagandha has Balya-Bruhaniya properties. Along with these Panchakarma thersapies Shamana Ausadhas were given to stimulate the Agni and eliminate and Vitiated Vata dosha. As a result of this nutrients/essence reach the Dhatus transferring through the minute Srotas. Thus, it helps in subsiding Vata dominant in old age causing Vayasthapan enabling the essence to reach all Dhatus.

CONCLUSION

In the treatment of Pakshaghata, Sarvang Mridu Abhyang and Sarvang Mridu Vaspa Sweda, Shirodhara, Shiropichu, Matra Basti and Niruha Basti and Shaman (palliative) treatment play a vital role in relieving all signs and symptoms and associated complaints. Before treatment the patient was unable to stand, his right side of the body lost sensation and reflexes, but after taking treatment the patient was able to stand and took some steps with support and felt sensation and seen improvement in the reflexes. As this is a single case study, there is a



need for a large number of patients in a randomized clinical trial to establish the effectiveness of the above treatment protocol in the management of Pakshaghata.

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