"MANAGEMENT OF ACUTE HEMORRHAGIC STROKE WITH AYURVED APPROACH: A SINGLE CASE STUDY"

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ABSTRACT:

Pakshaghata is a type of neurological condition that can be characterised as paralysis or weakness of one side of the body. Hemorrhagic stroke can be represented as a critical subtype of Pakshaghata characterised by bleeding into the brain parenchyma or surrounding structures. Here we present the case of a 55-year-old male who presented with sudden-onset right-sided weakness and altered sensorium. Neuroimaging revealed intraparenchymal haemorrhage extending to the ventricle and left cerebral hemisphere. Ayurvedic management includes Matra Basti, Murdha Taila Pichu, Snehana, Swedana, and Nasya. This case highlights the challenges associated with Pakshaghata secondary to hemorrhagic stroke and emphasises the importance of timely intervention and multidisciplinary care.

KEY WORDS:- Stroke, Hemiplegia, Hemorrhagic, Pakshaghata, Matra Basti, Murdha taila pichu, Nasya, Snehana, Swedana

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INTRODUCTION

Pakshaghata, also known as hemiplegia in modern medical science, is a neurological disorder that is characterised by unilateral paralysis or weakness of the limbs and face. It is historically documented in ancient texts such as the Charak Samhita and the Sushruta Samhita. Pakshaghata encompasses various aetiologies, including ischemic stroke, hemorrhagic stroke, other neurological disorders affecting one hemisphere of the and brain. Among the diverse aetiologies of Pakshaghata, hemorrhagic stroke is characterised by bleeding into the brain parenchyma or surrounding structures. Hemorrhagic stroke poses a significant challenge in terms of diagnosis, management, and rehabilitation. The neurologic symptoms of intracranial haemorrhage are the result of bleeding that occurs directly into or around the brain. This can be due to the toxic effects of blood, a mass effect on neural structures, or an increase in intracranial pressure.[1] The sudden onset of neurological deficits includes hemiparesis, sensory disturbances, and cranial nerve involvement. The term pakshaghata means impairment of one part of the body. Impairment of Karmendriya Gyanendriya and Mana is seen. Gyanendriya and Karmendriya are considered sensory and motor systems, respectively. According to Acharya Charak Prakupita Vayu, he takes shelter in one part of the body, causing Sira Snayu Sushkata, which leads to Sandhi Bandhana Shaithilya. [2] According to Acharya Sushruta Prakupita, Vayu travels in Urdhwa Adho and Tiryaka Dhamanis, leading to Sandhi Bandhana Moksha, which causes a loss of function on one side of the body. [3] Acharya Chakrapani explains Abhighata as one of the causes of Pakshaghata, especially Marmaabhighata. 4 Head is considered Marma, Sthana of Indriva, and Prana. 5 The clinical features of Pakshaghata include Chestahani, Ruja, and Vakasthambha. 6 Pakshaghata can be correlated with clinical signs and symptoms of stroke in modern medicine. Ayurveda has a wide variety of medicines to treat cerebrovascular accidents. Panchakarma and internal ayurvedic medication are both useful simultaneously in the management of hemorrhagic stroke. Panchakarma means five procedures, which include Vamana, Virechana, Basti, Nasya, and Raktamokshana. Out of these, Basti and Mrudu Virechana advised the patient. This case report aims to highlight the clinical presentation, diagnosis, management modalities, and outcome associated with specific cases of Pakshaghata secondary to hemorrhagic stroke.

CASE REPORT

A 55-year-old male patient approached Pakwasa Samanvaya Rugnalaya, Nagpur, on April 8, 2024, with complaints of loss of motor function on the right side, headache, vertigo, and drowsiness. He was diagnosed with intraparenchymal haemorrhage with left cerebellar emiplegia. The subject was previously diagnosed with a cerebrovascular accident (intraparenchymal haemorrhage).

HISTORY

A male patient aged 55 years was said to be healthy until April 2, 2024. He presented with a sudden onset of headaches and vertigo. The patient became drowsy and lost consciousness. No H/O seizure was present. He was taken immediately to an allopathic hospital, and he was advised to have a to have a CT scan. As per the reports, the impression was intraparenchymal haemorrhage with left cerebellar ischemia. He was treated at Indira Gandhi Govt Medical College and Hospital for 6 days in the ICU. As per the patient, he did not have any relief from the complaints. He approached Pakwasa Samanvaya Rugnalaya later for further management. So he got admitted to our hospital for treatment of the same. He underwent Ayurvedic management and was discharged with remarkable improvement.

Past History

K/C/O Hypertension since 1 Month on medication Tab Nicardia 10mg OD

No H/O Diabetes Mellitus, Bronchial Asthma, IHD, Thyroiddisorders

Personal History

Bowel : Constipation; Not passed since 5 days

Micturation : Catheterized

Sleep: Insomnia

Diet : Ryle's Tube feeding

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BP: 90/60 mmHG PR : 68/min

RR : 20 times/ min

Temp: 98.2F

Edema- No

Pallor- No

Icterus- No

Clubbing- No

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Astha Vidha Pariksha

Nadi: Vata Pittaja

Mala: Malavasthamba

Mutra: Catheterized

Jihva : Saam

Akruti : Krusha

Shabda:Aspastha

Sparsha: Anushna sheeta

Systemic Examination

Respiratory sound: on Auscultation, AEBE equal, no abnormal sound

detected

Cardiovascular sound: S1S2 normal

Gastrointestinal system: soft, non-tender, no organomegaly

detected

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Higher function al Journal of Ayurveda & Yoga

Consciousness- Drowsy

Orientation- Not fully oriented, Irritable

• Mini Mental State Examination

Orientation- 2

Registration-1

Attention and Calculation-0

Recall- 0

Language-1

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• Cranial Nerve Examination

Facial Nerve Examination- Asymmetry of face (deviation of

mouth to Left Side)

• Motor Function

Gait- Unable to walk

• Power

Left upper limb- 5/5

Left Lower limb- 4/5

Right upper limb- 3/5

Right lower limb- 4/5

• Reflexes

Deep reflexes such as biceps, triceps, brachioradialis, knee jerk, ankle jerk on affected side (right) were found to be diminished and on right side found to be normal.

• Tone

Right upper and lower was found to be hypotonic compared to left side

Nspecific Investigations rnal of Ayurveda & Yoga

Computarized Tomography scan of head done on

8/03/2024 shows Intra Parenchymal Hemorrhage extending to Ventricle and Left Cerebral hemisphere

Case was diagnosed as Pakshaghata (Cerebrovascular Accident)

MATERIALS AND METHODS

Centre of Study: Pakwasa Samanvaya Rugnalaya IPD, Nagpur

Simple random single case study

Treatment Advised

Table 1: Internal Medicine

Sr No	Name of	Dose	Time	Anupana
	Medicine			
1	Bruhatavata	125mg	Vyana Udana	Koshna Jala
	Chinamani Rasa		Kaala	
2	Gokshura,	2gm each	Vyana Udana	Koshna Jala
	punarvana,		Kaala	
	pushkarmoola,			
	sariva, Yastimadhu			
3	Gandharva	5gm	Apana Kaala	Koshna Jala
	Haritaki Churna			
4	Brahmi Vati	250mg 🛛 🖌	Vyana Udana	Koshna Jala
			Kaala	
5	Vacha		Muhurmuhura	
	Yastima <mark>dhu</mark>		(Jihva Pratisaran)	

Table 2: Shodhana Treatment given to Patient

	Sr No	Procedure	Dose	No of Days
1	Sai	Sarvanga Abhyanga with Bala Ashwagandhadi Taila	Dars	h a ²⁰
2	Nati	Sarvanga Swedana with Dashmoola Kwath alof Av	yurveda 8	k Yoga
3		Matra Basti with Yastimadhu Taila	60 ml	20
4		Murdha Taila Pichu with yastimadhu Taila		20
5		Nasya with KsheerBala Taila	3 drops each	15
			nostril	

RESULT

The condition of the patient improved gradually along with the course of treatment. The strength and power of both upper and lower limbs increased gradually, and muscle tone also improved. Patients' consciousness improved and they became well-oriented. On admission, the patient was suffering from aphasia, which improved gradually.

	On Admission	After 10 th day	On Discharge
Consciousness	Drowsy	Conscious	Conscious
Orientation	Disoriented	Irritable	Oriented
Mini mental state examination	4	15	28
Motor function	Unable to walk	Walking with support	Walking with minimal support
Power	3/5	4/5	4/5
Reflex	+	Improved	++
Tone	Hypotonic	Hypotonic	Hypertonic
Speech	Aphasia	Slurred Speech	Normal

Table 3: Assessment of Results

DISCUSSION



Acharya Charak has explained precise Chikitsa Sutras for the treatment of Pakshaghata, which are Swedana, Snehana, and Mrudu Virechana, as treatment modality for Pakshaghata.⁷ Initially, Snehana and Swedana should be advised along with Mrudu Virechana, and then Basti should be administered, followed by Shirodhara or Shiropichu. In this case, Snehana, Swedana, Matra Basti, Shiropichu, and Nasya were advised.

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Abhyanga: Abhyanga is massaging the body with Taila or any type of Sneha in the direction of hair follicles. Abhyanga acts on vitiated Vata Dosha, and the body becomes capable of withstanding fatigue and execise. Abhyanga is useful in Pakshaghata because it pacifies Vata Dosha and helps to nourish Dhatus.⁸ According to Acharya Charak Vayu, it is predominant in Sparshanendriya, and its site is Twak.⁹ Thus, due to Abyanga, the peripheral nervous system gets stimulated by the stimulation of Sparshanendriya, hence providing stimulation to the muscular system, vessels, and glands. Here, Abyanga was done with Bala Ashwagandhadi Taila, which has excellent Rasayana properties and promotes sensual well-being. It is an important Sneha Kalpana mentioned in Ayurveda texts and is prepared from Tila Taila, Bala Churna, Ashwagandha Churna, Laksha, and Rasna Churna. The Rasa Panchaka of Bala Ashwagandhadi Taila can be used to analyse its probable mode of action. Bala, Ashwagandha possesses Madhura Rasa, Snighdha Guna, and Madhura Vipaka, thus helping in mitigating Vata Dosha. Laksha possesses Snigdha Guna, which aids in reducing the effects of Ruksha Guna of Vata, thereby alleviating Vata Dosha. Tila Taila possesses Tikta, Madhura Rasa, and Ushna Virya, thus helping in the Kapha Vilayana and Vata Shamana. Tikta Rasa helps in the mitigation of Pitta Dosha. The Tikshna Guna of Taila is capable of penetrating Shukshma Strotas, where they activate sweat glands to produce more sweat after dilataion of Shukshma Strotas. Due to Laghu and Snighdha, Guna Doshas in Strotas are moved towards Koshta or excreted out through the micropores of the skin.

SWEDNANA

Nadi Sweda: Swedana is advised after Snehana Karma. Swedana is the procedure that reduces Sthambha, Gauravta, and Sheetata [10¹ Swedana reduces Sthamba Guna as it acts on the Saman Vayu, which resides in Dhatvagni, and the and the Shelshaka Kapha, which resides in Sandhi Sthan, Aam, Mamsa, Vasa, and Meda. Ruksha Guna is predominant in Saman Vayu, which leads to Sankocha and Sthambha. Swedana has Ushna Guna, which acts on Dhatus at Sukshma level and helps in Aam Pachana. Gaurava Guna predominates in Aapya Mahabhuta. Swedana leads to stimulation of Peshis and Vatavahini, which causes Laghuta in the body. Swedana helps in relieving Sheetata due to Ushna Guna of Swedana. Dashmoola Kwath executed Swedana in this case. Dashmool consists of Bilav, Agnimanta, Gambhari, Shyonaka, Patala, Bruhati, Kanthakari, Gokshura, Prushnaparni, and Shalparni. All these Dravyas are Uttama Vatashamaka.¹¹

VIRECHANA

Removal of Prakupita Doshas from Adho Marga, i.e., Guda Marga, is considered Virechana. [12] According to Acharya Vagabhata, Virechana is considered Uttam Chikitsa for Pakshaghata. [13] Virechana is indicated in Pakshaghata as both Pitta and Vata Doshas are vitiated, and in order to remove vitiated Vata and Pitta, Virechana plays a major role. Dravyas used for Virechana are Ushna, Tikshna, Sukshma, Vyavayi, and Vikasi Guna, which, after entering the blood circulation, go into the Sthula and Sukshma Strotas and cause Vishyandan of Doshas due to Ushna Guna and Chedana of Doshas due to Tikshna Guna. Due to Vishyandan and Chedana of Prakupita Doshas, the Prakupita Doshas are brought into Koshta. Prithvi and Jala Mahabhuta Pradhana, the Virechana Dravyas, are responsible for the removal of Kupita Doshas from Guda Marga. Gandharva Haritaki Churna serves as the medication for Mrudu Virechana. Gandharva Haritaki Churna consists of Haritaki Churna and Eranda Taila. Anulomana, VataVyadhi, and Ajirna all benefit from this formulation. Haritaki owns Deepana, Pachana, Anulomana, Rasayana, and Chakshushya properties. Eranda is considered Vatahara, Vrishya, or Rechaka.

BASTI

Basti is considered Ardha Chikitsa, according to Acharya Charak. ^[14] The administration of medicated Kwath, Taila, Ksheer, and Mamsa Rasa through Pakwashaya is called Basti. Acharya Charak has considered Basti Vayasthapana, Ayushya, Agni Vardhaka, Medha Vardhaka, Swara Prasadana, Varna Prasadana, Mala Shodhana, Pitta Shodhana, Vata Shodhana, Kapha Shodhana, and Mutra Shodhana. Oja and Shukra Vardhana. ^[15] Basti enters Pakwashaya, Shroni Pradesh, and Nabhi's Adhobhaga. The virya of Basti Dravya circulates throughout the entire body. The Virya of Basti Dravya carries vitiated doshas from all parts of the body to Pakwashaya, where Guda Marga removes them. In this case, experts

recommended using Matra Basti of Yastimadhu Taila. Matra basti is a type of Anuvasana basti. The only difference is that the quantity of Matra Basti is half that of Anuvasana Basti. [16] You can administer Matra Basti at any time. It has no specific vyapada or time duration for administration. Bala, Vruddha, and Sukumar specifically benefit from the use of Matra Basti. Durbala and Sukumar, the patients suffering from Pakshaghata, received the administration of Matra Basti. The combination of Yastimadhu and Tila Taila forms Yastimadhu Taila. Yastimadhu is a combination of Madhura Rasa, Snighdha Guna, Shita Virya, which functions as Vata, and Pitta Shamaka. In Pakshaghata (hemorrhagic stroke), the oozing of blood from a ruptured blood vessel can be stopped by Yastimadhu Taila Basti because of the Rakta Sthambhana and Rakta Prasadana properties of Yastimadhu.

SHIRO PICHU

Shiro Pichu is a type of Snehana comprising two terms. Shiro means head, and Pichu means cotton swab. A sterile cotton pad is mixed in Kinchit Ushna Taila, and the Taila-mixed Pichu is then kept on Brahmarandhra (the anterior fontanale) and wrapped in bandage cloth for a specific time interval. ^[17] Before placing Pichu, the patient is advised to clear the hair from his head. This helps in the quick absorption of Taila through Brahmarandhra. Shiro Pichu was done by Yastimadhu Taila. Shiro Pichu is an effective treatment for reducing stress and nervous tension. Reducing nervous tension helps to decrease intracranial pressure, which leads to the stoppage of the oozing of blood from capillaries or any other structure within the brain. Yastimadhu is Rasayana, Balya, and Medhya; hence, it can act as Uttama Vatashamaka.

NASYA

Instillation of medicated Kwath or Sneha through both nostrils is called Nasya. ^[18] Nasya is beneficial for Urdhwa Jatrugata Rogas and Shiro Rogas. According to Acharya Charak Indriya and Indriya Vahana Strotas, they are situated in Shira. ^[19] According to Acharya Charak Nasa, he is considered a Shiro Dwara. ^[20] Medicated Taila or Kwath, which are instilled through the nostrils, directly reach the brain. In this case, Nasya was advised by Ksheer Bala Taila. Ksheer Bala Taila reduces nerve inflammation due to Shita Virya and enhances nerve regeneration. It gives strength to muscles due to its Balya and Bruhana karma. Ksheer Bala Taila has Madhur Rasa, Madhura Vipaka, which is Vata, and Pitta Shamaka, which is beneficial to stop Rakta Vistravana. It is saumya in nature, which is pleasing to the sense organs and mind.

BRUHATA VATA CHINTAMANI RASA

Bruhata Vata Chintamani Rasa has Medhya, Rasayana, Balya, Ojovardhaka, and Yogavahi properties that are beneficial for Vata Vikara, especially Pakshaghata. This formulation arrests neuro-degenerative activity. Due to Yogavahi Guna, it is able to cross the blood-brain barrier, which gives a quick effect.

BRAHMI VATI

Brahmi Vati improves nervous function, enhances memory, and reduces convulsions and inflammation. Brahmi is considered Vaya Sthapana, Ayushya, Rasayani, and Medhya; hence, it improves nerve conduction and intelligence.

GOKSHURA

Gokshura has properties like Vata-Pitta Hara, Mutrala, Balya, Rasayana, and Vrushya; hence, it is considered Vata-Pitta Shamaka. Due to Mutrala Karma, it also helps in reducing intracranial pressure.

PUNARNAVA

Punarnava is Shoth Hara, Vayasthapana, Dipana, and Vayasthapana, which help in nerve cell regeneration and improve nervous function.

SARIVA

Sariva is in Grahi, Tridoshahara. Due to its Grahi Karma, it can be used for Rakta Sthambana and prevent further oozing of blood from vessels.

PUSHKARMOOLA

Pushkarmoola stimulates the brain and nervous system; as a result, it is useful in cerebral impairment and vata disorders.

JIHVA PRATISARANA

Vacha Churna and Yastimadhu Churna were responsible for Jihva Pratisarana. Vacha is considered a Medhya, which helps improve memory power. Acharya Charak has named Vacha Lekhaniya and Sangyasthapana MahakashaThese properties make it Vata Kapha Shamaka. Shamaka.

CONCLUSION

Ayurveda's basic goal is to protect healthy people's health and alleviate Tridoshas disorder. Pakshaghata is considered a Vataj Namatmaj Vyadhi. All Acharyas have emphasized that the predominance of Vata Dosha is the main cause of Pakshaghata.

In this study, the Acharyas planned the treatment protocol based on Dosha Dushya Samurchana. The patient received Shamana Aushadi, Basti, Nasya, Snehana, Swedana, and Mrudu Virechana in accordance with Vyadhi Avastha, Rogi Bala, and Dosha Bala. This case demonstrates the successful management of Pakshaghata (acute intraparenchymal

hemorrhage) using Ayurvedic treatment, which has yielded excellent results for the patient. The patient was able to walk with minimal support later. The results were encouraging, resulting in an improvement in the patient's quality of life.

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