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"AYURVEDIC MANAGEMENT OF PAKSHAGHAT (CEREBROVASCULAR ACCIDENT) : A CASE STUDY"

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ABSTRACT:

Stroke is one of the leading causes of death and disability in India. Stroke is a heterogeneous group of disorders. The medical field has faced significant challenges in treating this disease. There is an abundance of information available regarding the cause, prevention, risk, and treatment of stroke. Even so, our understanding of stroke treatment remains limited; there is currently no satisfactory and widely accepted treatment for stroke. Researchers in both Ayurveda and modern fields are conducting numerous studies to improve the management of cerebrovascular accidents (CVA). Ayurveda describes stroke (CVA) as Pakshaghata. Pakshaghata, also known as Nanatmaja vatavyadhi, arises due to vataprakopa. It affects the sira and snayus of half the body parts, as well as the face. In hemorrhagic conditions, vitiated vatadosha, pitta, and raktdushti are the main causes of pakshaghata. The study's goal was to assess the effects of ayurvedic treatment on pakshaghata. Sharia regards Vata as the controller of all the Tridoshas. Vatavyadhi is the influence of vitiated Vata on the Dushyas, which penetrates the entire body or a part of it and causes various ailments.

Material and Methods: A case study of CVA was admitted, with the patient presenting with complaints of drowsiness, difficulty walking, slurred speech, heaviness of the affected side of the body, pain, stiffness, bladder incontinence, and slurred speech. Upon examination, the Glasgow Coma Scale was 14/15 (E -3, M-5, V-6), and a CT scan of the brain revealed an intraparenchymal haemorrhage in the left gangliocapsular region, measuring 3.3 x 5.1 x3.5 cm. The case was diagnosed as Pakshaghata with Pittavatavruta, in conjunction with laboratory investigations. Various stages of the disease were treated with oral medications, including Snehan, Swedan, Shirodhara, Nasya, Yapan basti, Shashtikshali pindswed, Mruduvirechana, and Jivhanirlekhana. Additionally, physiotherapy sessions were implemented on a consistent basis. **Observation and Result:** After successfully combining shaman treatment and Panchakarma treatment for consecutive times, the patient got complete relief in all complaints. Before treatment NIH-Stroke Scale was 17 & Barthel index scale was 15 and after the treatment NIH-Stroke Scale was 4 & Barthel index scale was 70 providing symptomatic relief too.

KEY WORDS:- Stroke, Cerebrovascular Accident, Ayurveda, Pakshaghata, Snehana, Swedana.

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INTRODUCTION

The name "Visha" comes from the combination of the words "Vish" and "ka," which indicate to quickly disseminate or absorb. Visha quickly spreads throughout Rasadi Dhatus and takes up residence there. Visha[1] which meaning poison, comes from the word vishada, which can also indicate sad spirits or dukha. When the world saw this, it lost all hope or turned into Vishanna; Charaka called it Visha[2] The root dusha, which meaning "impure" and "having the property or nature to vitiate," is the source of the word dushi Visha[3] According to Susruta and Vagbhata, Dushi Visha: Latent poison (Dushi Visha) is any form of poison that comes from inanimate (sthavara) or animate (jangama) sources, or any artificial poison (kritrim Visha) that is retained in the body after partial expulsion or that has temporarily undergone detoxification by anti-poisonous drugs, forest fire, wind, or sun. Any poison that lacks the ten inherent qualities of Visha and is unable to cause severe poisoning symptoms can also be referred to as Dushi Visha. Delay in effect and cumulative toxicity on the body are attributed to low potency of all 10 attributes. The poison's low potency means that it won't be fatal. These low potency poisons are kept in the body for extended periods of time without causing lethal symptoms, much like the encircling action of Dosha Kappa (Avarana)[4, 5]

CASE REPORT

Table 1: History taking

Introductive history	OPD No. – 31689 IPD No. – 1408 Bed No. - 12 Name – Ratnakar Katarkar Age/Sex – 42 yrs/Male Marital status – Married Education – up to 10th std. Socioeconomic status – poor Occupation – Farmer	
Past history	HTN Since 10 years on modern Rx Tab. Telmikind AM 1 OD DM Since 1 years on modern Rx Tab. Glycimate 500 mg Before meal	
Table No. 1 To be continued…		
Chief complaints	• Unable to stand & walk Independently. • Loss of function & sensation of right upper & lower limb. • Heaviness of affected side of the body with pain & stiffness. • Incontinence of Bladder. • Slurred speech.Difficulty in swallowing. • Unable to open eyes. • Swelling in right forearm.	Since 6 months

Associated complaints	• Insomnia • Incomplete defecation • Loss of appetite	Since 6 month
Treatment history	Ayurvedic Chikitsa	Since 6 month
History of Present illness	According to patient statement he was quite well 6 months back then he suddenly fell down during farming on and complaints of headache, drowsiness, reduced strength in the right upper and lower limbs and difficulty in walking associated with drowsiness, slurred speech, and heaviness of affected side with pain, stiffness, and bladder incontinence. For the same complaints they consulted for treatment to Govt. medical hospital, Nagpur and hospitalised for 10 days. Also, he is a known case of hypertension since 10 years and Diabetic since 1 years and he is under medication for it. So the patient came to Department of Kayachikitsa, Shri Ayurved Mahavidyalaya & Pakwasa Samnvaya Rugnalaya, Nagpur OPD for better ayurvedic management of this disease.	

PHYSICAL EXAMINATION: -

Blood pressure - 110/70 mmhg

Pulse rate – 76/min.;

Edema – Rt. Wrist joint; Pallor – NoTemperature – Afebrile; Icterus – No Respiratory rate – 20/min.; Clubbing – No

SYSTEMIC EXAMINATION –CENTRAL NERVOUS SYSTEM:

❖ Consciousness	Conscious
❖ Higher functions	
➢ Mental status	MMSE score – 18

Table No. 3 To be continued…

❖ Cranial nerve examination ➢ Olfactory ➢ Oculomotor ➢ Hypoglossal	Hyposmia Ptosis in both eyeSlurred speech. (Rest of the cranial nerve status were normal)
❖ Motor examination	
➢ Tone of muscles ➢ Power of muscles ➢ Reflexes – Superficial & Deep	Diminished (Right upper & lower limb) Swallowing – difficultyGrade – I (Right upper & lower limb) Rt. biceps jerk reflex – grade – 0 Rt. Triceps jerk reflex – grade –0 Rt. supinator jerk reflex – grade – 0 Rt. knee jerk reflex – grade – 1 Rt. planter jerk reflex – grade – 3
❖ Gait	Ataxic gait

Grade tendon reflexes as follows –

- 0 – Absent
- 1 – Present

- 2 – Brisk
- 3 – Very brisk
- 4 – Clonus

Table 2: OBJECTIVE FINDING

Sr.No.	DATE	INVESTIGATION	FINDING
1	24-11-2022	Brain CT-Scan	Intraparenchymal hemorrhage in left gangliocapsular region, measuring 3.3 x 5.1 x 3.5 cm
2	- -	Blood	Hb - 13.2 gm% TLC - 500 cells/cmm ESR - 20mm/hr Neutrophils - 60% Monocytes0 - 2% Eosinophils - 07% Platelet - 2.50 lakhs/cmm RBC – 5.18 millions /cmm BSL (Fasting) - 108.8mg/dl Blood urea - 0.6mg/dl
3	-	Urine micrological	Pus cells – 3-4 hpf, Epithelial cells 2-3 hpf and few bacilli.
4	02-07-2024	MRI BRAIN	-Old haemorrhage -Chronic infarct in left gangliocapsular region

Table 3: SUBJECTIVE FINDING

Sr.No.	SYMPTOMS OF PAKSHAGHAT	
1	Vama sandhibandhan vimokshyana	Present
2	Dakshina sandhibandhan vimokshyana	Absent
3	Cheshta nivritti	Present
4	Ruja	Present
5	Vakastambha	Present
6	Akarmanyam	Present
7	Achetnam	Absent

DIAGNOSIS

On the basis of clinical presentation and old CT-Scan & recent MRI of the brain it was diagnosed as case of Cerebrovascular accident (Pakshaghata).

TREATMENT PROTOCOL

Patient was admitted in IPD of Pakwasa Samanvaya Rugnalaya, Hanuman Nagar, Nagpur. Plan for Snehan, Swedan, Shirodhara, Nasya, Yapana basti, Shashtikshali pindswed, Mruduvirechana, etc. with oral medicines were adopted at various stages of the disease. Also physiotherapy sessions were regularly adopted. Stated as followes.

1. SHAMAN CHIKITSA

Table 4: Shaman Chikitsa

Sr.No.	Name of medicine	Dose	Time	Anupan
1	Bruhatvatachintamani Rasa	125 mg	Early Morning & Evening	1 tsf Goghrut
2	Hemgarbha Pottali + Nagkeshar Churna	125 mg + 3 gm	After Food	Koshna Jal
3	Kakolyadi kwatha	30 ml	After Food	Koshna Jal
4	Mansyadi Kashaya (Jantamansi + Ashwagandha + Ajmoda)	30 ml	After Food	Koshna Jal
5	Mashaatmaguptadi kashaya (Mash, Atmagupta, Erand, Bala, Hingu, Saindhava)	30 ml	Before Food	Koshna Jal
6	Gandharvaharitaki Vati	500 mg	At Bed Time	Koshna Jal

2. SHODHAN CHIKITSA

Table 5: Shodhan Chikitsa

Sr.No.	Name of procedure	Name of drug	Quantity	Time	Duration
1	Sarvanga Snehan	Ksheerbala Taila	100 ml /day	20 min	15 Days
2	Sarwang Swedan (Nadi Swed)	Dashamul Kwath	-	10 min	15 Days
3	Shirodhara	Til Taila & Bramhi Taila (3:1)	300 ml & 100 ml resp.	20 min	15 Days
4	Nasya	Narayan Taila	8-8 drops	15 min	15 Days
5	Matrabasti	Sahacharadi Taila	60 ml	-	7 Days
6	Yapana Basti	Mustadi Yapana Basti	100 ml	-	7 Days
7	Pindsweda	Shastikshali	-	20 min	15 Days
8	Jivhanirlekhan	Pippali, Vacha, Shunthi, Marich, Madhu.	2 mg each	5 min	15 Days

3. PHYSIOTHERAPY: - for 15 days.

OBSERVATION

Table 6: National Institute of Health Stroke Scale (NIH-SS)

Score	NIH scale	Range of score	BT	AT

1-a	Level of consciousness	0 to 3	0	0
1-b	LoC Question	0 to 2	1	0
1-c	LoC	0 to 2	1	0
2	Best gaze	0 to 2	0	0
3	Visual	0 to 3	2	0
4	Facial palsy	0 to 3	2	0
5	Motor arm	Right 0 to 4 Left 0 to 4	3 0	1 0
6	Motor leg	Right 0 to 4 Left 0 to 4	4 0	2 0
8	Sensory	0 to 2	1	0
9	Best language	0 to 3	2	1
10	Dysarthria	0 to 2	0	0
11	Extinction and inattention (formerly neglect)	0 to 2	1	0
	Total	**42**	**17**	**04**

(0 = no stroke, 1-4 = minor stroke, 5-15 = moderate stroke, 15-20 = moderate/severe stroke, 21-42 = severe stroke)

Table 6: Barthel Index

Sr. No.	Domain name	Range of score	BT	AT
1	Feeding	0 = unable 5 = needs help in cutting, spreading butter, etc. or requires modified diet 10 = independent	5	10
2	Bathing	0 = dependent 5 = independent (or in shower)	0	5
3	Grooming	0 = needs to help with personal care 5 = independent face /hair/teeth/shaving (implements provided)	0	0
4	Dressing	0 = dependent 5 = needs help but can do about half unaided 10 = independent (including buttons, zips, laces etc.)	0	5
5	Bowel	0 = incontinent (or needs to be given enemas) 5 = occasional accident 10 = continent	0	10
6	Bladder	0 = incontinent or catheterized and unable to manage alone 5 = occasional accident 10 = continent	0	10
7	Toilet use	0 = dependent 5 = needs some help, but can do something alone 10 = independent (on and off, dressing, wiping)	0	5
8	Transfers (bed to chair and back)	0 = unable, no sitting balance 5 = major help (of one or two people, physical) can sit 10 = minor help (verbal or physical) 15 = independent	5	10
9	Mobility (on the level surface	0 = immobile or < 50 yards 5 = wheelchair independent, including corners, > 50 yards 10 = walks with help of one person (verbal or physical) > 50 yards 15 = independent (but may use any aid; for example, stick) > 50 yards	5	10
10	Stairs	0 = unable 5 = needs help (verbal, physical, carrying aid)	5	5
	Total		**20**	**70**

(BT = Before treatment, AT = After treatment)

Table 7: Visual Analog Scale for pain

Sr. No.	Symptoms of Pakshaghata	BT	AT	AF
1	Vama sandhibandhan vimokshyana	8	4	3
2	Dakshina sandhibandhan vimokshyana	0	0	0
3	Cheshta nivritti	8	3	2
4	Ruja	6	2	0
5	Vakastambha	8	2	1
6	Akarmandyam	6	2	1
7	Achetnam	0	0	0

(0 = No pain, 1-3 = mild pain, 4-5 = moderate pain, 6-7 = severe pain, 8-9 = very severe pain, 10 = excruciating pain.)

.

DISCUSSION

Acharya Charak has described Pakshaghata in vata nanatmaj vyadhi [8] and Acharya Sushrut has mention in mahavatvyadhi [9] and also Acharya Charak & Sushrut has given treatment protocol of Pakshaghata [10] which is Snehana, Swedana, Basti karma, murdhani taila, Nasya, Shashtikshali Pindsweda, Mruduvirechana, Jivhanirlekhana and oral medication accordingly treatment was in this patient. The case taken for study was diagnosed as Pittavatavrutta Pakshaghata (CVA). Considering the involvement of doshas i.e. pradhanyata of Pitta, Vata and Rakta dhatu dushti assessed on basis of laxanas. The treatment was planned according to the Dosha, Dushya and Sthana dushti. The Prakupita Pitta dosha got ashraya in the Raktavaha srothas because of Sanga and Atipravrutti type of Strothodusti. The pathological consequences are seen all over the body, involving rakta, mamsa, majja dhatu and the Uttamanga Shir Marma. Hence below mentioned treatment plan was done in keeping interest of Dosha, Dushya and Sthana dushti.

Patient was admitted on 10/07/2024 at 2:20 pm in IPD Pakwasa Samanvaya Rugnalaya. Shaman Chikitsa was started Bruhatvatachintamani Rasa [11] having properties such as medhya, rasayana, lekhana, balya, kshayagna, ojovardhana & yogavahi which has targeted effect for the management of Pakshaghata. Hemgarbha Pottali [12] contains Parada, Gandhak, Suvarna, Tamra bhasma. It had Rasayana property. It is prepared which is potent medicine in emergency aspect They shows fast action towards mastiksha [13]. Nagkeshar Churna [14] is kashay rasatmak, sheet viryatmaka, ruksha, shoshak, laghu aampachak, therefore it is raktprasadak property. Hence used in combination with Hemgarbha Pottali. Kakolyadi kwatha [15] used as vatapittapradhan-shonitdushti, bhruhana, vrushya and jivaniya perspective. Mansyadi Kashaya [16] used when marmaghata is due to mansik hetu, which reflects in this case. Mashaatmaguptadi Kashaya [17], Gandharva Haritaki Vati [18] helps to control Vata and Pitta with the Anulomana activity, which helps to break the disease's pathophysiology and corrects the body's metabolism [19].

After 5 days of shaman chikitsa started, Panchakarma treatment started, Sarvanga Snehan [20] was done with Ksheerbala taila [21] because it is snehana vata-pittashamak & balya and Sarvang Swedana[22] (Nadi Swed) with Dashmoola kwatha [23] together Snehana & Swedana

liquefies the dosha and brings them to koshtha [24] . Anuvasan basti [25] as a Matra basti [26] was given with Sahacharadi taila because it is vatashamak. Mustadi Yapana basti [27] was given in after 7 days of anuvasan basti. Mustadi Yapana basti as it is indicated in Vata vyadi acts as Bruhana, Balya, Mamsabalapradha and Vrushya. Shirodhara [28] started with Tila taila & Bramhi taila [29] as mentioned above proportion because of vata shamak & Sangyasthapan. Shirodhara was planned to treat the Shiro-Marmabhighata. Nasya [30] given as Sangyaprabhodhanartha. As the samprapthi is involved from the Sangyavaha Srothas, the Sangyaprabhodhana Nasya [31] has been done with the Narayan taila [32] which stimulates the Sangya and act as Srothoshodhana too. Shashtikshali pindsweda [33] also started as dhatu Bruhana & Balya perspective. It provides bala to the affected siraa and kandara. Jivhanirlekhana was done as a Sangyaprabhodhanartha with ushna, tikshna dravyas which produces laghavata in tounge by kaphachhedana; those dravyas like Pippali, Vacha, Shunthi, Marich, Madhu.

Glasgow Coma Scale (GCS – Eye opening response was 4, Verbal response was 5 and Motor response was 6; therefore, Total score 15/15.

CONCLUSION

Several reports suggest that in about 20% of non-cardio-embolic strokes in young (<45 years), the commonly believed risk-factors (e.g. hypertension diabetes mellitus, tobacco use, etc.) are absent [34]. On the basis of results observed in this case; it can be said that, Ayurvedic management with Panchakarma procedure like Abhyanga, Shashtikshali pindswed, Nasya, Matrabasti, Shirodharav, Snehapana, Virechana and Jivhanirlekhan along with oral ayurveda medication are effective in the management of Pakshaghata. These approaches are safe, cost effective and easy to follow. The patient was followed up for two months and there was no any deterioration. As this is a single case study, there is a need for large number of patients randomized clinical trial to establish the effectiveness of the above treatment protocol in the management of Pakshaghata. This case report serves as a lead for further researches in the management of Stroke (Pakshaghata).

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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