

Effective Management of Acute Non-Hemorrhagic Infarct through Ayurvedic Treatment: A Case Study

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Abstract: Due to today's changing lifestyle i.e. excess consumption of Junk food, alcohol, stress, shifting duties many diseases occur easily like Diabetes Mellitus, Hypertension etc. Such diseases later help for more complicated conditions like stroke. Stroke is the 3rd most common cause of death in the developed world after Cancer and Ischemic Heart Disease. For the function of brain, constant supply of O₂ and glucose is required. In Stroke, Focal Brain Dysfunction occurs due to focal ischemia or Hemorrhage. This is a case study of stroke patient diagnosed with Acute Non-hemorrhagic infarct. First was treated by modern system of medicine with very less effect then they were shifted in ayurveda hospital for ayurveda treatment. They were successfully managed by Panchkarma procedures e.g. Abhyanga, Swedana, Basti, and Shaman Aushadhi for 1month. The response obtained is highly encouraging and will help as a guideline to manage such patients in the future.

Keywords: Stroke, Pakshaghat, Panchkarma, shaman chikitsa, ayurveda

1. Introduction

Stroke^[1] is defined as sudden onset of focal neurological deficit which mainly occurs due to lack of oxygen resulting from disease of cerebral vasculature and its contents resulting in loss of blood flow to the brain. The normal functions of the brain are dependent upon a relatively constant supply of oxygen and glucose derived from the blood perfusing it (55 mL to 70 mL of blood/100g of brain/min). If the blood flow is critically reduced below 15 mL/100 g/ min, the resulting ischaemia with hypoxia, when sufficiently prolonged, may cause death of neurons and glia (cerebral infarction). Three types of major strokes are now recognised. These are ischaemic, haemorrhagic and lacunar strokes. Stroke can be correlate to pakshaghat in ayurveda. The term Pakshaghat^[2] 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. Gyanendriya constitute an important part of the sensory System, while Karmendriyas denote an important part of the motor system and Manas is supposed to control both. Due to the prominence of Vata Dosha affects the function of sira, snayu, and kandara; Acharya Charaka included it in the nanatmajavyadhi and Madhyamarogamarga. Acharya Sushruta explained That Vata dosha travels in Urdhava AdhogaTiryakaDhamanis And caused Sandhi Bandhana moksha that Ultimately leads to loss of function in one half of body is called Pakshaghatata.

2. Case Reports

A 54-year, male patient, DRIVER by occupation with history of CerebroVascular Accident. He was already diagnosed for same the basis of clinical presentation and Findings of MRI of Brain visited the OPD of Kayachikitsa dept of M. A. Podar Ayurvedic College Worli (Maharashtra) with following complaints.

Main complaints

- Weakness in upper and lower extremities
 - Difficulty in walking
 - Inability to walk or stand for long time
 - Constipation
- } 6 months

Other complaints– slurred speech , decreased grip power.

K/C/O – Hypertension from 5 years

Drug history –

- 1) Tab. Amlodipine 5mg OD.
- 2) Tab. Atorvastatin 20mg OD
- 3) Tab. Clopidogrel 75mg OD
- 4) Tab. Ecospirin 75mg OD

Family history- Nil

Past history -Nil

Surgical history – No any

N/K/C/O – DM/PTB/BA/EPILEPSY

General examination

General condition	FAIR
Blood pressure	130/80mmhg
Pulse rate	80/min
Respiratory rate	26/min
Temperature	97 F
Built	Medium built

Astavidhpariksha

Mutra – Samyaka
Mala – Asamyaka (Malbadhata)
Jivha - Saam
Shabda – Aprakruta
Sparsha – Prakruta
Druk - Prakruta
Akriti – Madhyama
Nidra – Asamyaka (atinidra)

Systemic examination

RS	AEBE clear
CVS	S1 S2 normal
CNS	Conscious, oriented

LAB Investigation – MRI

Acute non haemorrhagic infarct in the left MCA territory with diffusion perfusion mismatch, mild generalised atrophy with periventricular ischemic changes. Date 20 Jan 2022.

CBC - WNL

ESR – 24 mm/hr

LFT – WNL

RFT – WNL

Lipid Profile –

T. Cholesterol – 217 mg/dl

Triglyceride – 190 mg/dl

HDL – 100 mg/dl

LDL – 130 mg/dl

Hetu Sevana –

Spicy food, junk food, excessive alcohol intake, virudhha ahar sevana, achankramanta, divaswapna.

Criteria of assessment:**Muscle Power^[3]:**

Grade	Description
0	No contraction
1	Flicker or trace the contraction
2	Active movement with gravity
3	Active movement against gravity
4	Active movement against gravity and resistance
5	Normal power

Muscle Tone^[4]:

Grade	Description
0	No increase
1	Slight increase with catch and release
2	Minimal resistance throughout the range following catch
3	More marked increase tone through range of movement
4	Considerable increase in tone with passive movement

Reflexes^[5]:

Grade	Description
0	Absent
1+ or +	Hypoactive
2+ or ++	Normal
3+ or +++	Hyperactive without clonus
4+ or ++++	Hyperactive with clonus

Treatment Given:

Panchakarma therapy and shaman aushadhi was given as follows: -

Procedure	Dravya	Duration
Snehan	tila tail	1 to 25 th days
Swedan	Nadi swedana	1 to 25 th days
Patrapotaliswedana	Erand, arka, nirgundi, vasa	1 to 7 th days
Pinda swedana	Shali dhanya, ksheer	8 th to 25 th day

Basti Karma**1) Yoga Basti: - for 8 days**

Comprising of

- ErandamooladiNiruha Basti- 350ml.
- Anuvasan Basti with sahachar Taila -60ml.

Contents of Niruha Basti:

- Makshika-
- Saindhava lavana-
- Sneha (Tila Taila)-
- Kalka (Shatapushpa, Hribera, Priyangu, Pippali, Yashtimadhu, Bala, Rasanjana, Indrayava, Musta)
- Kashaya (Eranda, Palasha, Rasna, Ashwagandha, Atibala, Guduchi, Punarnava,
- Aaragwadha, Devadaru, Madanaphala, Laghu Panchamoola) –
- Aavapa- Gomutra

Given 7 niruhabasti and 7 anuvasanbasti in alternate days.

2) Kala Basti: After yoga basti karma for 15 days.

Comprising of – Panchatiktaghrita with

panchtiktaghrita– 60ml

Contents of ksheerbasti-

- Godugdha
- Panchtikta Kashaya (guduchi ,patol, vasa , nimba , kantakari)
- Panchtiktaghruta

Shamana Chikitsa:

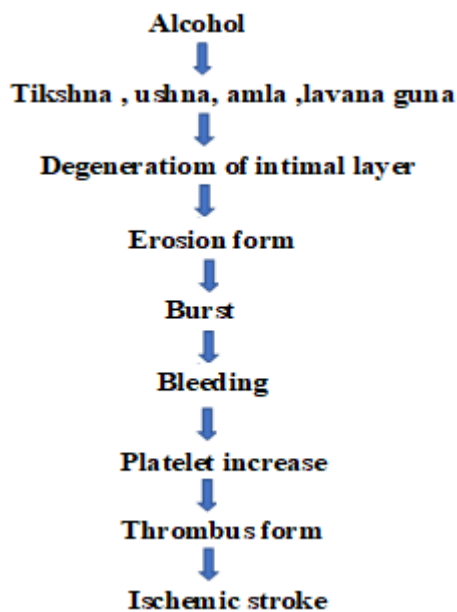
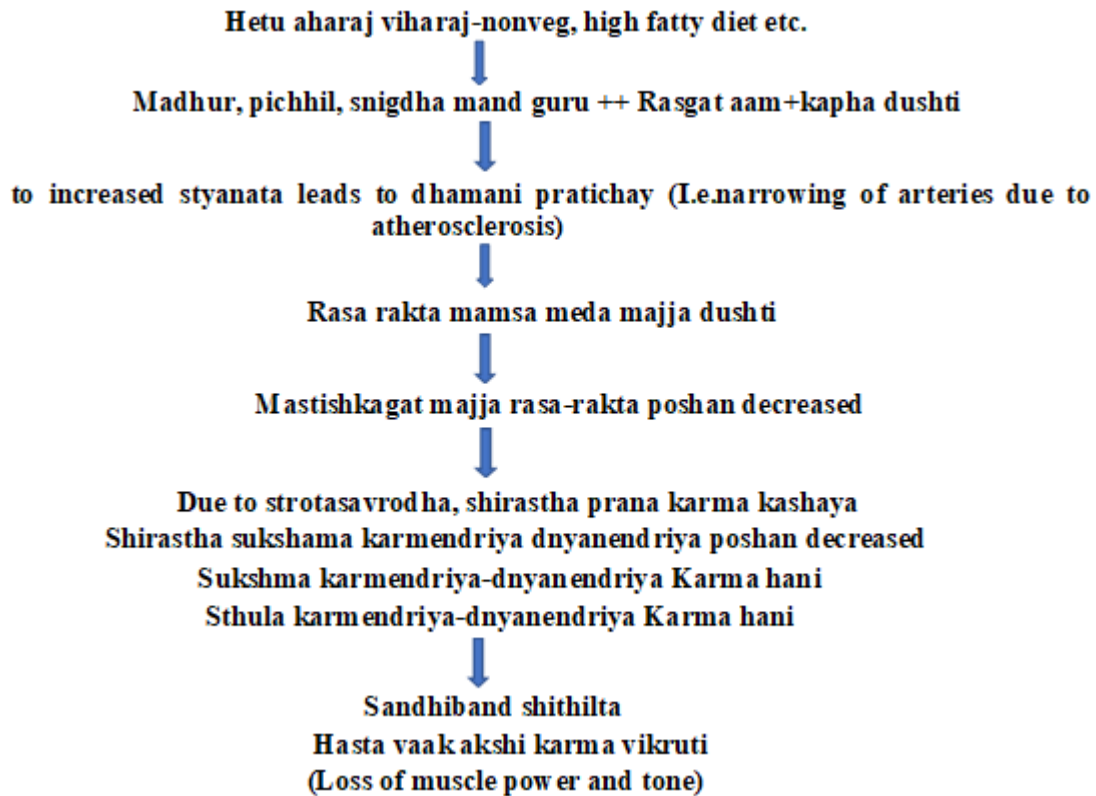
Drug	Quantity	Days
Brihatvatachintamani rasa	250mg BD	For 25 days
Ashwagandha vati	2gm BD	For 25 days

3. Observation and Result

PATIENT	CASE	
	BT	AT
Muscle tone	Grade 2	Grade 1
Muscle power	Grade 1	Grade 2
Reflexes	Grade 4	Grade 3
Grip power	No	Yes
Writing	No	Yes
Blowing of face	Leaking of air	No leaking
Slurred speech	Yes	Improved
Speed of walk in 1minute	19steps	25steps

4. Discussion**Samprapti Ghatak**

- Dosha – Vata pradhantridosha
- Doosha – rasa ,rakta , mans, meda, majja , sira , snayu ,
- Agni – jatharagni ,dhatvagni
- Srotas – rasavaha, raktavaha
- Adhishtan – mastishkagatashiras
- Rogmarga – madhyam
- Sadhyashadhyatva – kruchhasadhyatva

**Abhyanga^[6]:**

Lukewarm tila Taila is used for 30 min followed by Sarvang Nadi Swedana for 15 min. Tila Taila improves the strength, and this results in the nourishment of Dhatu

Nadi Swedan^[7] :

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) In between the channels.

Patra Pinda Sweda^[8]

Patra pindasweda is most often recommended in condition like chronic pain, stiffness of the joints and even muscle pain. Patra Pinda Sweda may helping increasing blood circulation to the affected area.

Pinda Swedana^[9]:

Having snigdha, kledanguna work on body at cellular level helps in preventing muscular strength and Improving tone. Helps in restoration of mobility of soft tissue. Improves movement flexibility of body.

Basti^[10]:**1) Niruh Basti**

The udbhavasthana of vatavyadhi can be regarded as Pakvashaya and the vyaktasthana is kati and sakthi. Basti chikitsa is considered as Ardha chikitsa or Even Poorna chikitsa in vatavyadhi. Niruhabasti has effectiveness in the dosha nirharana from Pakwashaya which is considered as main sites of vata dosha.

Erandamooladi Basti is Deepana and Lekhana in nature which helps in pacifying Kapha and Reducing symptoms like heaviness and stiffness. ErandmuladiNiruha Basti Which contains drugs among Them maximum number drugs having Ushna Veerya, which is specially indicated in pain and stiffness .

Anuvasan Basti

In Anuvasana Basti Sneha is used. Nothing is as superior as Taila in destroying Vata as Taila with its Snigdha Guna destroys Rukshata and with its Guru and Usnaguna destroys Laghu and SheetaGunu of Vata respectively.

2) Panchtikta Ksheer Basti:

Individual drug properties of panchatiktakshir are as follows :-

Guduchi is vayasthapana, rasayana, balyaagnidipana and tridoshghna.

Patola is ruchikar, dipana, kaphapittaghna.

Vasa are shosh-har, kaphapittaghna.

Nimba is dipana, vatakapaghna.

Kantakari is dipana, pachana, kaphavatahar, shothhar, angamardaprashamana. Kshir is jivniya, rasayaniya, sarvarognashana. It is rich source of calcium and is a complete food.

Bruhatvatachintamani Ras^[11].

All the drugs used in the preparation of Brihat vata Chintamani Rasa are having tridoshagna properties. The Medhya property of Rajata bhasma checks on the vakshuddhi. The Lekhana property of suvar nabhasma helps in sroto shodhana in dhamani Abhraka bhasma acts on pranavahasrotas and its moola, Hridaya. Loha bhasma corrects kshaya. The balya and dhatu prasadhana property of Pravala bhasma helps in eradicating the kshaya. Ojovardhana property of muktabhasma regularizes the body metabolism. Parada bhasma or Rasa sindura is yogavahi which results in the targeted action of the drug. Kumari is bhedhini, granthihara, vatahara, and Rasayana. Nanoparticles are relatively easier to cross the blood-brain-barrier

Ashwagandha Vati^[12]:

Ashwagandha is a well-known Ayurvedic Rasayana, and belongs to a sub-group of Rasayanas known as Medhyarasayanas.

Gandharva Haritaki Churna

It was given for Mrudu Anuloman. This formulation relieves vata from katipradesha and pakvashaya. This formulation has Vatahara and Snigdha Virechaka properties.

- Pathya - Laghu Supachya Ahara, Laghu Vyayama
- Apathya - Bakery products, cold drinks, ice-cream.

Vihar/Exercise - Daily exercise started at hospital then advice to continue at home, exercises are as follows,

- Practicing standing without any help.
- Practice for Straight line walking.
- Hip flexion and extension exercises.
- Practice for sitting and standing and Fine movements like writing, to hold the subject.

5. Conclusion

Pakshaghata is a VatajaNanatmaja Vyadhi considered as Mahavatavyadhi. Also the lifestyle management like proper healthy diet and exercise can prevent the chances of stroke. Being a Vatavyadhi, Basti is the main treatment for Vatadosha. Basti karma, Shalishashtika Pinda sweda along with Shamana Aushadhis administered to the patient according to Vyadhi Avastha, Rogi Bala and Dosha Bala. Panchakarma procedures along with certain Shamanaushad showed significant improvement in the condition of the patient. Patient was able to walk independently later. The results were satisfactory and encouraging and this led to improvement in the quality of life of patient. Thus it can be concluded that ayurvedic management is clinically highly effective in the treatment of Pakshaghata.

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