Multifacet approach towards Pakshaghata - A Successive Case Study

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ABSTRACT

Pakshaghata is one among the 80 Vataja Nanatmaja Vikaras. It is a condition which one half of the body is affected leading to the Ruja, Vaksthamba, Karmahani etc. Prognosis depends on many factors including Vaya, Bala, Dosha involvement etc. In contemporary science it can be correlated to the Cerebrovascular disease.

Methodology: A 58 Years old Female Patient who is known case of RA since 20 years and HTN since 2 years under medication approached to OPD of SKAMCH & RC Bangalore in a stretcher, with a Lakshana of reduced strength in right half of the body, pain, loss of function, sensation, slurred speech and was unable to walk. Based on the clinical presentation and Ayurvedic parameters, the condition was diagnosed as Pakshaghata with special reference to the Haemorrhagic Stroke with Hemorrhage in Sub cortical Region involving MCA and Chikitsa was adopted keeping in the Dhatukshayajanya pathology as a base. Sarvanga Abhyanga, Sarvanga Nadi Sweda and Rajayapana Yoga Basti and Physiotherapy was adopted as a treatment modality. Shamanoushadi like Brihatavatachintamani Rasa, Nityananda Rasa, Arogvavardhini Rasa Capsule, Palsineuron, Dhanvantarum Kashaya, Mahamanjisthadi Kashaya and Sahacharadi Kashaya were prescribed. Result: After 1 month of treatment and follow up, there were drastic improvements in the sign and symptoms. Assessment done on the SS-QoL Scale and Barthes index for stroke shown significant result. Discussion: This article is a discussion about a case of Hemorrhagic Stroke of Brain successfully treated with Ayurvedic approach. Conclusion: The above described sets of Panchakarma treatment along with Shamanoushadi has shown significant result clinically with speedy recovery within a month in the present Case study.

Key words: Pakshaghata, Cerebrovascular accident, Rheumatoid arthritis, Rajayapana Basthi

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. 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. Hemiplegia is the common manifestation of a stroke with Neurological deficit affecting face, limbs and Trunk on one side of the body. The Stroke is one of the leading causes of the death and disability in India. The cumulative incidence of stroke ranged from 105 to 152/100,000 persons per year, and the crude prevalence of stroke ranged from 44.29 to 555/100,000 persons in different parts of the country during the past decade. Based on research studies revealed that patients with autoimmune diseases such as RA and SLE were more vulnerable to cerebral vascular accidents (CVA) where systemic inflammation in the pathogenesis of autoimmune disease interacts and accelerates vessel Atherosclerosis.
incidence of Stroke increased in patients who had suffered from autoimmune diseases for longer period.[4] So in this case patient who is K/C/O Rheumatoid arthritis since 20 years on medications and HTN since 2 years on irregular medication since 2 months for which might play a role in the increased cardiovascular risk and stroke. As pathophysiology of Cerebrovascular disease divided into those in which insufficiency of blood supply causes ischemic injury and those in which Haemorrhagic i.e., bleeding either into Parenchyma or into space between the pial and arachnoid covering over the brain or spinal cord (Sub arachnoid space). The injury may be focal, multifocal or diffuse.[5] As Hypertension Patient with RA have less flexible artery that can’t widen enough to let more blood through narrow arteries. As the patient on irregular medication for HTN which may be cause for increased intracranial Pressure leading Haemorrhagic stroke.

**CASE REPORT**

A patient aged 58 years, married female from Goddu Village, Sakleshpura [Taluk] Hassan [District] Karnataka was brought on stretcher to Kayachikitsa Outpatient Department of Sri Kalabyraveshwara Swamy Ayurvedic Medical College, Hospital and Research Centre on 18/02/2023 with complaints of reduced strength in the right half of the body with difficulty to sit, walk and perform daily activities, Slurred speech and Dribbling of fluids while drinking from right side of mouth since 8 days and Patient c/o Fever and Bodyache since one day and got admitted on same day. The subject was a previously diagnosed case of Cerebrovascular accident.

**History**

A Female patient aged 58years who is a known case of Rheumatoid arthritis since 20years and Hypertension since 2 years under medications and, Left HTN medication for 2 months. Patient was apparently healthy 8 days before, on 10/01/2023 around 10:00pm after Dinner, patient went out of the home for washroom, she felt numbness in Right upper limb and lower limb, she went inside Kitchen and she felt reduced strength in right half of the body associated with slurring of Speech and she fell on the floor. After 10minutes her family members saw and shifted her to the bed, she had impaired conscious on that time and tried to warm up the body after 1 hour she had an episode of Vomiting, no history of Headache and Seizures. Later taken her to the nearby Clinic, Doctor told that their High BP they treated with Antihypertensive Medicine [Unknown]. They advised to take for Higher Centre, on the same day around 2:30pm she was shifted to Apollo BGS Hospital, Mysore. Where they advised for MRI and Blood investigations. MRI T2 diffusion brain was done which revealed Acute left thalamocapsular hematoma, likely hypertension etiology. On Neurological examination, she had Dysarthria and Right sided Hemiplegia and admitted in ICU for further monitoring her BP was controlled with IV and oral Antihypertensive, She had Urine retention and Foley's catheterization was done. After 2 days she was shifted to general ward from ICU and advised with Physiotherapy. Patient was improved with her symptoms and slurring of speech reduced and she was discharged with oral medication on 18/01/2022. On the same day 18/01/23 evening, Patient experienced reduced strength in right half of the body with slurring of speech and was unable to walk for which she approached our SKAMCH & RC, OPD on Stretcher.

**Poorva Vyadhi Vrutanta**

Patient was suffering from Rheumatoid arthritis since 20years under medication and Hypertension since 2 years under medication and Left medication for 2 months.

**Physical Examination**

Attitude: Lying on bed in supine position with semi flexed right elbow.

Built: Poorly built

Nourishment: Moderate nourishment

P:Absent, E:Absent, N:Absent, C:Absent, I:Absent, L:Absent

Temperature: 98.1°F

Pulse: 76/min

Respiratory rate: 18 / min
**BP:** 140/80mm Hg  
**Height:** 150cm  
**Weight:** 46kg  
**BMI:** 20.4 kg/m²  
**Heart rate:** 76/min  
**Tongue:** Uncoated  
**Ashtasthana Pareeksha**  
**Nadi:** 76/min  
**Mutra:** On Catheterization  
**Mala:** Once in a day [Regular]  
**Jihwa:** Alipta  
**Shabda:** Slurred speech  
**Sparsha:** 98.1°  
**Drik:** Prakruta  
**Akruti:** Avara  

**Systemic Examination**  
**Central Nervous System**  
Higher mental Function:  
Level of consciousness: Conscious  
Orientation to time, place and person: Intact  
Memory: Intact  
Manner, Affect and relationship to people and things: Normal  

**Cranial Nerve Examination**  
**5th Cranial Nerve - Trigeminal Nerve**  
**Sensory:**  
Light Touch, Pin Prick and Temperature - Not perceived in Right side of the body  
**Motor:**  
Deviation of Jaw : Absent  
Movement of Jaw : Possible  
Clenching of teeth : reduced in left side  
Opening of mouth against resistance : possible  

**7th Cranial Nerve - Facial Nerve**  
**Sensory**  
Sense of taste in anterior 2/3rd of Tongue: Reduced  
Sensation of Face: Reduced in right side  
**Motor**  
Eyebrow raising : Possible  
Frowning of forehead : Possible  
Complete closure of eyes : Possible  
Clenching of teeth : Reduced in right side  
Blowing of cheek : Reduced in right side  
Naso-labial fold : Flattened on right side  
Taste perception : Reduced taste perception  
Dribbling of saliva : Absent, Fluid leakage while in right side of mouth  

**11th Cranial Nerve - Accessory Nerve**  
**Trapeziums muscle:**  
Atrophy : Absent  
Fasciculation's - Absent  
Shoulder droop : Absent  
Shoulder shrugging  
With resistance : reduced in right side  
Without resistance : reduced in right side  

**Sternocleidomastoid Muscle:**  
Atrophy : Absent  
Fasciculation : Absent  
All other Cranial Nerves are Intact.  

**Sensory System**  
Light touch  
Superficial pain  
Deep pain  
Temperature  
Reduced Perception
Proprioception:
Position: Normal
Vibration: Normal
Stereognosis of Objects: Can able to recognize
Graphesthesia: Not able to identify in Right, Normal in left
One point Location: Not able to identify in Right, Normal in left
Two point discrimination: Not able to identify in right half of the body

Motor System:
Gait: Unable to walk

Muscle Bulk:

Table 1: Showing the circumference measurement

<table>
<thead>
<tr>
<th>Muscle Bulk</th>
<th>Right side of Body</th>
<th>Left side of body in cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-calf circumference</td>
<td>26 cm</td>
<td>26 cm</td>
</tr>
<tr>
<td>Mid-thigh circumference</td>
<td>40 cm</td>
<td>40 cm</td>
</tr>
<tr>
<td>Mid-arm circumference</td>
<td>22 cm</td>
<td>22 cm</td>
</tr>
<tr>
<td>Mid-forearm circumference</td>
<td>16 cm</td>
<td>16 cm</td>
</tr>
</tbody>
</table>

Muscle Tone:

Table 2: Showing the type of muscle tone

<table>
<thead>
<tr>
<th>Muscle Tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Upper Limb</td>
</tr>
<tr>
<td>Hypertonic Spasticity: Clasp Knife Spasticity</td>
</tr>
<tr>
<td>Left Upper Limb</td>
</tr>
<tr>
<td>Normotonic</td>
</tr>
<tr>
<td>Right Lower Limb</td>
</tr>
<tr>
<td>Hypertonic Spasticity - Clasp Knife Spasticity</td>
</tr>
<tr>
<td>Left Lower Limb</td>
</tr>
<tr>
<td>Normotonic</td>
</tr>
</tbody>
</table>

Muscle Power:

Table 3: Showing the Muscle Power

<table>
<thead>
<tr>
<th></th>
<th>Right</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Limb</td>
<td>3/5</td>
<td>5/5</td>
</tr>
</tbody>
</table>

Table 4: Co-ordination Test

<table>
<thead>
<tr>
<th>Tests</th>
<th>Right</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Romberg’s Test</td>
<td>couldn’t elicit</td>
<td>couldn’t elicit</td>
</tr>
<tr>
<td>Finger Nose Test</td>
<td>Not able to perform</td>
<td>Intact</td>
</tr>
<tr>
<td>Heel Shin Test</td>
<td>Not able to perform</td>
<td>Not able to perform</td>
</tr>
<tr>
<td>Tandem Walking</td>
<td>Not able to perform</td>
<td>Not able to perform</td>
</tr>
<tr>
<td>Dysdiadokinesia</td>
<td>Absent</td>
<td>Absent</td>
</tr>
</tbody>
</table>

Reflexes:

Superficial Reflex:

Corneal reflex: Present
Abdominal reflex: Present
Plantar reflex Right foot: Extension of great toe
Left foot: Normal

Table 5: Deep Tendon Reflexes

<table>
<thead>
<tr>
<th>Reflexes</th>
<th>Right</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biceps</td>
<td>4+</td>
<td>2+</td>
</tr>
<tr>
<td>Triceps</td>
<td>4+</td>
<td>2+</td>
</tr>
<tr>
<td>Supinator</td>
<td>4+</td>
<td>2+</td>
</tr>
<tr>
<td>Knee jerk</td>
<td>4+</td>
<td>2+</td>
</tr>
<tr>
<td>Ankle jerk</td>
<td>4+</td>
<td>2+</td>
</tr>
</tbody>
</table>

- Respiratory system - on auscultation, normal sounds heard and no abnormality detected.
- Cardiovascular system - S1 S2 heard and no abnormality detected.
- Gastrointestinal system - Soft, non-tender, no organomegaly detected
Laboratory Investigation

**Table 6: CT Scan Brain Without Contrast**

<table>
<thead>
<tr>
<th>Date</th>
<th>CT Scan Impression</th>
</tr>
</thead>
<tbody>
<tr>
<td>On 10/01/2023</td>
<td>MRI T2 diffusion brain was done which revealed Acute left thalamocapsular hematoma, likely hypertension etiology.</td>
</tr>
<tr>
<td>On 12/01/2023</td>
<td>Acute Hematoma with mild perilesional edema involving the left thalamocapsular region. Hematoma measure 2.3x1.2cm.</td>
</tr>
</tbody>
</table>

**2D ECHO with Color Doppler on**

- Concentric LV Hypertrophy
- No LV RWMA
- Good LV Systolic Function [LVEF - 58%]
- No Pericardial effusion and No Vegetation/clots

**Nidana Panchaka**

- **Aharaja Nidana:** Abhojana, Alpa and Laghu Bhojana, Ati Lavana Sevana, Ati-Dadi Sevana
- **Viharaja Nidana:** Ati Adwa, Ati Santapa, Shrama, Divaswapan [exposure to wind and sun when she was going to farm for work]
- **Manasika Nidana:** Chinta
- Other: Rogatikarshanat due to Chirakaala Vyadhi Avastha,
- K/C/O Rheumatoid arthritis since 20 years, K /C/O Hypertension since 2 years left for 2 months, Intake of long term medication for Rheumatoid arthritis [DMARD’s].

**Poorvaroopa**

Increased Blood pressure due to irregular Hypertensive medications

**Roopa**

*Chesta Nivrutti of Dakshina Parshva Shareera*

**Ruja**

**Vakstamba**

**Karma-Chestahani**

**Samprapti:**

Due to *Nidana Sevana*

- **Vata Pradhana Tridosha Dushti**
- **Jataragni Upahata**

Leads to the formation of *Ama*

- **Shonita Abhishyandata**
- **Sthanasamshraya in Dhamani and Sira of Shiras**
- **Shiromarma Abhigata due to Atiraktachhapa**
- **Rakta Srava in Shiras**

Leads to obstruction of movement of *Vata* by *Rakta*

leading to *Dhatukshaya*

Karmakshaya leads to **Pakshaghata**

**Samprapti Ghataka**

- **Dosha** - Vata Pitta Pradhana Tridosha
- **Dushya** - Rasa, Rakta, Mamsa, Medha, Asthi, Majja, Sira and Snayu
- **Srotas** - Rasavaha, Raktavaha, Mamsavaha, Medovaha, Vatavaha
- **Srotodushti** - Atipravrutti, Vimargagamana
- **Agni** - Jataragni and Dhatwagni
- **Udbhavasthana** - Pakwashaya
- **Sancharasthana** - Rasayini’s
- **Adhishthana** - Masthiskhagata Shiras
- **Vyaktstana** - Ardha kaya
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ISSN: 2456-3110

July 2023

- Rogamarga - Madhyama
- Vyadhi Swabhava - Chirakari
- Sadhya Asadhyata - Kruchrasadhya

Table 7: Differential Diagnosis

<table>
<thead>
<tr>
<th>Disease</th>
<th>Lakshanas</th>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ardita</td>
<td>Ardhamukha, Sankocha, Vakrata of Nasa, Bhru, Lalata, Akshi, Hanu, Stabda Netrata, Deena, Samutshupa, Danta Chalana, Msravana Badha, Pada, Hasta, Akshi, Janga, Uru, Shanka, Shravana, Ganda Ruk, Vak Sangha, Netradeenam Vikruti</td>
<td>Vaksthamba</td>
<td>All other symptoms are Absent</td>
</tr>
<tr>
<td>Sarvanga Vata</td>
<td>Vata Prakopa in Sarva Deha leads to Hasta Pada Sankocha</td>
<td>Sankocha of Hasta and Pada of right side of the body</td>
<td>All four limbs are not affected</td>
</tr>
<tr>
<td>Pakshaghata</td>
<td>Cheshta Nivrutti of Artha Shareera, Ruja, Vakstamba</td>
<td>Cheshta Nivrutti of Artha Shareera, Vakstamba</td>
<td></td>
</tr>
</tbody>
</table>

Diagnosis

Table 8: Diagnosis based on anatomical location

<table>
<thead>
<tr>
<th>Signs</th>
<th>UMN lesions</th>
<th>LMN lesions</th>
<th>Extra pyramidal</th>
<th>Cerebellar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Weakness</td>
<td>Weak</td>
<td>No Weakness</td>
<td>No Weakness</td>
</tr>
<tr>
<td>Wasting and atrophy</td>
<td>Absent</td>
<td>Absent</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 9: Diagnosis based on location of the brain

<table>
<thead>
<tr>
<th>Cortical</th>
<th>Subcortical</th>
<th>Brain Stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoplegia/Contralateral hemiplegia</td>
<td>Monoplegia / Contralateral hemiplegia</td>
<td>Vertigo</td>
</tr>
<tr>
<td>Speech disturbance</td>
<td>Speech disturbance</td>
<td>Nausea</td>
</tr>
<tr>
<td>Jacksonian convulsions and headache</td>
<td>Loss of tactile localization and discrimination</td>
<td>Vomiting</td>
</tr>
<tr>
<td>Cortical type of sensory loss</td>
<td></td>
<td>Crossed hemiplegia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brainstem syndrome.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Horner’s syndrome.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cerebellar involvement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deep coma, Pin point pupil, hyperpyrexia, decortical rigidity, Absence of lateral movement of eye on head turning.</td>
</tr>
</tbody>
</table>
Table 10: Diagnosis based on Etiology

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Cerebral hemorrhage</th>
<th>Cerebral thrombosis</th>
<th>Embolism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>Sudden</td>
<td>Slowly</td>
<td>More sudden</td>
</tr>
<tr>
<td>Precipitating factor</td>
<td>During exertion</td>
<td>During sleep</td>
<td>During exertion</td>
</tr>
<tr>
<td>Headache</td>
<td>Severe</td>
<td>Less</td>
<td>Absent</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Common</td>
<td>Less</td>
<td>Less</td>
</tr>
<tr>
<td>Convulsion</td>
<td>Absent</td>
<td>Common</td>
<td>Rare</td>
</tr>
<tr>
<td>Unconsciousness</td>
<td>Common</td>
<td>Variable</td>
<td>Rare</td>
</tr>
<tr>
<td>Neck stiffness</td>
<td>May present</td>
<td>Absent</td>
<td>Absent</td>
</tr>
<tr>
<td>Blood pressure</td>
<td>High</td>
<td>May be high</td>
<td>Normal</td>
</tr>
<tr>
<td>Pulse</td>
<td>Low</td>
<td>Normal</td>
<td>Irregular</td>
</tr>
<tr>
<td>Shifting Hemiplegia</td>
<td>Never</td>
<td>Never</td>
<td>May present</td>
</tr>
<tr>
<td>Cheyne-stroke breathing</td>
<td>Usually present</td>
<td>Usually absent</td>
<td>Usually absent</td>
</tr>
</tbody>
</table>

Based on the Progression of the Disease

- Transient ischemic attack (TIA)
- Stroke in evolution
- Completed stroke
- Reversible ischemic neurological deficit (RIND)
- Partial non-progressive stroke (PNS)

Diagnosis

*Dakshina Parshva Pakshaghata* in terms of CVD with Right Sided Hemiplegia due to Hemorrhage in Subcortical Region Involving MCA.

Therapeutic Intervention

Considering the Symptoms, Condition of the patient, treatment was adopted at different Phases by seeing the response for the treatment.

Table 11: Course of Treatment

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment Given</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Phase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18/01/2023 to 24/01/23 For 7 days</td>
<td>1. Sarvanga Abhyanga with Dhanwantarum Taila 2. Mridhu Nadi Sweda 3. Physiotherapy</td>
<td>Pt c/o reduced strength in right half of the Body improved 10-15%. Pt was able to sit with support. Pt c/o slurred speech reduced to 30-40% Pt c/o dribbling of fluid from right side of the mouth reduced to 40-50% Pt c/o fever, Body pain reduced. Pt c/o Pain in flank</td>
</tr>
</tbody>
</table>
region while lifting right hand after 4 days Rx

2nd Phase
From 24/01/23 to 30/01/23
For 7 days

1. Sarvanga Abhyanga with Dhanwantarum Taila
2. Mridhu Nadi Sweda
3. Physiotherapy
Oral medication added

- Pt c/o reduced strength in right half of the body improved to 40-50%.
- Pt was able to walk with support of other persons.
- Catheter was removed after she was able to walk with support.
- Pt c/o Pain in flank region while lifting right hand reduced 70%.
- Pt c/o slurred speech improved to 60%.
- Pt c/o dribbling of fluid from right side

2nd Phase
31/01/23

Sadyovirechana with Gandharvahasthadi Taila 45ml with 1 glass of warm milk was given in empty stomach morning around 8:40am after Sarvanga Abhyanga with Dhanwantarum Taila F/B Mridhu Nadi Sweda

Total No of Vegas : 04
Advised to take Ganji in the Evening.
Pt was feeling mild tiredness.
Samsarjana Krama done for 1 day

3rd Phase
2/2/23 to 9/2/23
For 8 days

1. Sarvanga Abhyanga with Dhanwantarum Taila
2. Mridhu Nadi Sweda
3. Physiotherapy
4. Rajayapana Yoga Basti

- Pt c/o reduced strength in right half of the body improved to 40-50%
- Pt can able to walk with reduced support than before.
CASE REPORT

Table 12: Showing the chart of Rajayapana Basti given for 8 days

<table>
<thead>
<tr>
<th>Days</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basti</td>
<td>A</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

Anuvasana Basti [A]
Kalyanaka Ghrita - 80ml

Niruha Basti [N] - Following ingredients are added
Makshika - 60ml
Kalyanaka Ghrita - 80ml
Rajayapana Kalka - 30gm
Rajayapana Kwatha - 300ml
Mamsa Rasa - 200ml

Table 13: Showing the list of Oral Medication given for Patient

<table>
<thead>
<tr>
<th>Date</th>
<th>Oral Medication</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>24/01/2023 to</td>
<td>Tab. Brihat Vata Chintamani</td>
<td>1-0-1[A/F]</td>
</tr>
<tr>
<td>9/2/2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24/01/2023</td>
<td>Cap. Palsinuron</td>
<td>2-0-2[A/F]</td>
</tr>
<tr>
<td>to 9/2/2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24/01/2023 to</td>
<td>Tab Nityananda Rasa</td>
<td>2-0-2[A/F]</td>
</tr>
<tr>
<td>30/1/2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/02/2023 to</td>
<td>Tab. Arogyavardhini Rasa</td>
<td>2-0-2[A/F]</td>
</tr>
<tr>
<td>9/2/2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24/01/2023 to</td>
<td>Mahamanjishta Kashaya + Sahacharadi Kashaya +</td>
<td>9tsp-0-9tsp</td>
</tr>
<tr>
<td>9/2/2023</td>
<td>Dhanvantarum Kashaya</td>
<td>with 9tsp water[A/F]</td>
</tr>
</tbody>
</table>

Observation and Results

Gradually the patient becomes improved in her symptoms during the indoor treatment and overall general health was started improved. Patient was discharged on oral medications. Effect of treatment was assessed based on Physical symptoms, Stroke scale Quality of Life Index, Barthes index for stroke and improved quality of life.

Improvements

Follow Up after 15 days

- Pt c/o reduced strength in right half of the body improved to 70%
Pt can able to walk without anyone’s help for Bathroom.
Pt c/o Slurred speech improved to 80%.
Pt was able to take food with her right hand.
Pt can lift the right hand without difficulty above the shoulder level
Pt was able to walk alone with help of Stick.

Follow Up after 1 month
Pt c/o reduced strength in right half of the body improved to 85%
Pt can able to walk without anyone’s help for Bathroom.
Pt c/o Slurred speech improved to 95%.
Pt was able to take food with her right hand.
Pt can lift the right hand without difficulty above the shoulder level and above
Pt was able to walk alone without Stick.

Stroke scale Quality of Life Index\(^6\) was assessed before and after treatment

<table>
<thead>
<tr>
<th>SS-QOL</th>
<th>Before Treatment</th>
<th>After Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total score</td>
<td>71</td>
<td>186</td>
</tr>
</tbody>
</table>

Barthes index\(^7\) for stroke Patient was assessed Before and After treatment

<table>
<thead>
<tr>
<th>SN</th>
<th>Range of score</th>
<th>Range of score</th>
<th>Before Treatment</th>
<th>After Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Feeding</td>
<td>0 = Unable</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 = needs help in cutting, spreading butter etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 = independent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Bathing</td>
<td>0 = dependent</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 = independent (or in shower)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Grooming</td>
<td>0 = needs to help with personal care</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 = independent face/hair/teeth/shaving</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 4.  | Dressing       | 0 = dependent   | 0                | 5               |
|     |                | 5 = needs help but can do about half unaided |                  |                 |

| 5.  | Bowel          | 0 = incontinent  | 5                | 10              |
|     |                | 5 = occasional accident |                 |                 |
|     |                | 10 = continent    |                  |                 |

| 6.  | Bladder        | 0 = incontinent or catheterized and unable to manage alone | 0                | 10              |
|     |                | 5 = Occasional accident |                 |                 |
|     |                | 10 = continent       |                  |                 |

| 7.  | Toilet use     | 0 = dependent      | 0                | 5               |
|     |                | 5 = needs some help, but can do something alone |                 |                 |
|     |                | 10 = independent (on & off, dressing, wiping) |                  |                 |

| 8.  | Transfers [bed to chair & back] | 0 = unable, no sitting balance | 5                | 15              |
|     |                                | 5 = major help (of one or two people, physical can sit |                  |                 |
|     |                                | 10 = minor help (verbal or physical) |                  |                 |
|     |                                | 15 = independent |                  |                 |

| 9.  | Mobility [on Level surface] | 0 = immobile or <50 yards | 0                | 15              |
|     |                                | 5 = wheel chair independent, including corners, >50 yards |                  |                 |
|     |                                | 10 = walks with help of one person verbal or physical |                  |                 |
|     |                                | 15 = independent (but may use any aid; for example, stick)>50 yards |                  |                 |

| 10. | Stairs         | 0 = unable         | 0                | 5               |
|     |                | 5 = needs help (verbal, physical, carrying aid) |                  |                 |
DISCUSSION

Discussion on a disease

Pakshaghata is a Vatananatmaja Vikara characterised by the loss of function and mobility of half of the body either Vamabhaga or Dhakshina Bhagha. According to Charaka Acharya, Pakshaghata is considered as involvement of half of the body along with facial involvement whereas Acharya Sushruta considers only involvement of half of the body. Charaka Samhita opines that Vayu beholds either right or left side of the body, dries up Sira and Snayu of respective area and producing loss of movements, along with Ruja and Vakstambha. In Sushruta Samhita, the Samparpti explained as exaggerated Vata travels through Urdhva, Adhoga and Tiryak Dhamanis, loosens the Sandhi Bandha and leads to Shareeraradhaakarmanyata Kshaya and Achetana. Charaka Samhita mentions Swedana, Snehana and Virechana. Sushruta Samhita explained patient of Pakshaghata who is not emaciated, has pain in the affected part, habitually follows the rules of diet, and regimen. Who can afford to pay for the necessary accessories considered for the treatment. Initially, Snehana and Swedana, Mrudu Shodana thereafter Niruha Basti, Anuvasana Basti and Shirodhara with other treatment procedures.

Discussion on procedure

A. Snehana and Swedana

In this study, Snehana given as Abhyanga and Swedhana as Mrudu Nadi Sweda was done, as the Samanya Chikitsa of Pakshaghata is ‘Snehanana Swedana Samyutam Pakshaghate Virechanam’. The main part of Abhyanga procedure is the mechanical stimulation more precisely the pressure application. It reduces the motor neuron hyper excitability. Here Abhyanga was done with Dhanvantarum Taila[8] which is explained in Vatavadyadhi in Ayurveda. It is used both internally (through oral route) and externally for the purpose of massage. Both its intake through oral route and application externally are beneficial in the treatment of paralysis, monoplegia, hemiplegia, diplegia, quadriplegia and wasting due to disuse or lower motor neuron origin. It helps in strengthening of muscle fibres, ligaments, tendons, and other tissues of the body. It also serves as neuroprotective, which plays a crucial role in the process of neuro-protection and promoting the natural functions of the nervous system. It also provides support to the musculoskeletal system, hence helpful in the pain related disorders like arthritis, degenerative arthritis, knee pain, synovitis, low-back pain, and spondylosis. Its results are more significant on the regions of pain and numbness because of the use of sesame oil as its base, which is Vatashamaka by nature. It is also found helpful in treating disorders of puerperium, children, urinary tract, uterus, herniation, and hydrocele.

Swedana

Swedana is usually given after the oleation - Snehana therapy. Swedana is the procedure that relieves Sthambha, Gaurava, Sheeta which induces Swedana. Swedana drugs by Ushna and Thikshna Guna are capable of penetrating the microcirculatory channels (Srotas) where they activate the sweat glands to produce more sweat after dilation of micro channels. Laghu and Snigdha Dosha in the channels and direct them to move towards Koshta.

Mrudu Shodhana

In Susrutha Samhita while explaining the Mahavata Vyadhi Chikitsa initial line of management of Pakshaghata is through Snehana, Swedana and Mrudu Shodhana[9] (Mrudu Virechana). Snigdha Virechana is advised by Vagbhata for Pakshaghata. So in this case Sadyovirechana was done with 45ml of Gandharvahasthadi Taila[8] with Milk after 11 days of Sarvanga Abhyanga, Sarvanga Mridhu Nadi Sweda and Physiotherapy when Patient become able to walk with support. Virechana is the elimination of Dosha through the lower passage. Virechana, when carried out it in the proper manner with all its precautions yields multifaceted effects to the person. As Pakwashaya[11] is a Sthana for Vatadosha, In the condition of Pakwashyagata Vata the first line of treatment is Sneha Virechana. The involvement of Sira and Snayu in
the Samprapti of Pakshaghata accounts the role of Raktaadhatu[12] in Pakshaghata for which Virechana is the treatment. Mashishka or Mastulung is the Adhishtana of Pakshaghata. Mastulunga is considered as the “Avaleena Ghritakara Mastaka Majja[13]”. Dalhana says Pittadhara and Majjadharakala are same. So, for that Virechana treatment is advised.

Different neuropeptides and hormones of gut are found in the brain. They have great effects on neurons, smooth muscles and glands. Virechana can improve the number of neuropeptides by cleansing the gastrointestinal tract, as a result it may affect the brain and modify its various functions. Hence Virechana can be used in the disorders of the brain.

**Basti**

Basti Chikitsa is regarded as prime line of treatment for Vata Dosha. So Basti Chikitsa can be adopted depending on the Avastha of the Pakshaghata. Basti is not only best for Vata disorders it also equally effective in correcting the morbid Pitta, Kopha and Raktha - “Basti Varte Cha Pitta Cha Kaphe Cha Raktham Va Shasyate”.[14]

Basti is considered as Sampoorna Chikitsa.[15] The Basti which maintain the lifespan for a longer period (Ayu Sthapanan) is considered as Yapana Basti. Acharya Charaka describes the Yapana Basti can be given in all seasons irrespective of Kala or Ritu. It is also considered as Ubhayarthakari as it acts as both Shodhana and Shampa. Yapana Basti is Sadhyobalajanana and Rasayana. In Astanga Sangraha specifically used the word Rajayapana Basti and also considered as Sreshta Yapana Basti.

In Charaka Samhita even we find the reference regarding Basti Karma indicated in conditions like for person whose limbs have become stiff and contracted, who suffer from lameness who are afflicted with fracture and dislocations, in those limbs are afflicted by the movement of different types of aggravation of Vata.[16] In Astanga Sangraha while explaining the Pradhanayatha of Basti, Acharya Vagbhata explained that Basti is mainly for Vatapradhoneshu, Shigram Bruhamana Karyam hence forth in disease like Pakshaghata which is a kind of Apatarpanajanya Vyadhi, for Brimhanartha and Vata Shamanartha, in the present case Basti Chikitsa is adopted.

**Mode of action of Basti**

When Basti is introduced into the Pakwashaya, the Veerya of Basti reaches all over the body, collects the accumulated Doshas and Shakrut from Nabhi, Kati, Parshwa and Kukshi Pradesha, causes Snehana to the body and expels out the Dosh along with Puresha. Charakacharya have explained that it is ‘Amrutopamam’ for the patients having Kshina Majja, Shukra and Oja and has properties like Balya, Brimhana and Pushtikara.[17]

**Physiotherapy**

Physiotherapy can be defined as a treatment method that focuses on the science of movement and helps people to restore, maintain and maximize their physical strength, function, motion and overall well-being. As physiotherapy is a treatment measure of physical and electrical means to accelerate the patients recovery from injuries and diseases that hazards the normal style of life. Main principle of principle of physiotherapy is to improve Activities of Daily life [ADL] and Instrumental Activities of daily living. The other benefits are increased circulation to all the four limbs and temporary relief of pain consider the spasticity the joint mobility and flexibility was attained through the Range of Motion (ROM), Passive stretching and peripheral joint mobilization.

**Brihat Vata Chintamani**

Brihat Vata Chintamani Rasa is a Unique Herbo-mineral formulations explained in the context of Vatavatadi in both Bhaishajya Ratnavali[18] and Siddha Yoga Sangraha. All the drugs used in these are having Tridoshagna properties. Medhya property of Rajata Bhasma helps on Vakshudi. The Lekhana property of Swarna Bhasma helps in Srotoshodhana in Dhamani. Abhraka Bhasma acts on Pranavaha Srotas and its Moola, Hridaya. Loha Bhasma corrects Kshaya, at the same time acts as Stoulyahara. The Balya and Dhatu Prasadhana property of Pravala Bhasma helps in eradicated the Kshaya. Ojovardhana property of Mukta Bhasma regularizes the body metabolism.
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**Rachana P. Badaji et al. Multifacet approach towards Pakshaghata**

**ISSN: 2456-3110**

**July 2023**

Parada Bhasma is Yogavahi which result in the target action of the drug. Kumari is Bhedhini, Granthihara, Vatahara and Rasayana. This formulation also helps in Protein scavenging, anti-inflammatory and arrests neurodegenerative activity with the added benefit of crossing the blood brain barrier.[19] So as in this condition patient had a long term chronic Rheumatoid arthritis these Bhasma said to have quick absorption, long term utility in specified dose, They act as Rasayana.

**Capsule Palsineuron**

Palsineuron contains Mahavatvidwamsa Rasa, Sameerapannaga Rasa, Soothashekara Rasa, Ekangaveera Rasa, Khurasan Owa (Hyoscyamus niger) and Lajari (Mimosa pudica). Mahatvatavidhwans Rasa is a generic preparation which improves the metabolism of CNS and PNS, Co-ordinates the neuro muscular activity. Sameerapannaga Rasa improves tissue oxidation, Overcomes Anoxia, normalizes neuro-muscular metabolism. Ekangaveera Rasa promotes healing of damaged nerves and blood vessels, recanalize blood vessels activate sensory and motor functions. Soothashekara Rasa provides nutritional support for the fast healing of damaged Organelles. Lajari regenerative effect on Neuro lesions and Khurasan Owa checks Neuro irritation.

**Nithyananda Rasa**

Nityananda Rasa explained in the Shlipada Rogadhiika in Bhaishajya Ratnavalli.[19] which is one of the Herbo-mineral drug. It contains Parada, Gandhaka, Tamra, Kamsya, Vanga, Loha, Sudda Haratala, Sudda Tutta Shankha and Varati Bhasma, herbal drugs like Triphala, Trikatu, Panchalavana, Vidanga, Chavya, Hapusha, Vacha, Trivrut etc. which is having Lekhana and Rasayana property and Tridoshashamaka. Kajjali has Ushna Guna and Katu Vipaka which act as Yogavahi and Tridoshna. Tamra, Kamsya and Vanga Bhasma does the Lekhana Karma which helps in Kapaharanam, Tamra Bhasma also act as Rasayana. Majorities of Kashtoushadis possess Katu, Tikta, Kashaya Rasa, Ushna Veerya and Katu Vipaka act as Vatakaphahara. These drugs also possess the Shothahara property which helps inflammatory condition and atherosclerotic changes of the vessels.

Arogyavardhini Rasa

Arogyavardhini Rasa[20] is a Herbomineral preparation, the content of this compound like Tamra Bhasma, Guggulu, Katuki, Triphala are having Lekhana, Dipana and Medadosahara properties. Lasuna is having Aavaranahara, Rasayana properties. Parada which can cross the Blood Brain Barrier and acts on the target site. Loha Bhasma and Abhraka Bhasma, Tamra Bhasma all these are Balya, Ayurshya, Vrisya and Medhya, Dhatwagnivardhana, Malashodaka and Pakwahayadushti Nashaka Helps in Building immunity in the individual. As this is K/C/O Rheumatoid arthritis which is an Autoimmune Disorder through Arogyavardhini Rasa which helps in immune modulation.

Dhanvantarum Kashaya

Dhanvantarum Kashaya which is explained in the Sahasrayoga[22] having the ingredient like Kushta and Tagara mainly have the ability to cross the Blood Brain Barrier which can help to correct the pathology in the brain.

Mahamanjishtadi Kashaya

Mahamanjishtadi Kashaya which is explained in the Sharangadharar Madyamakhanda[23] having many drugs which does Rakta Shodhaka, Rakta Stambhaka and Shotahara. As we know Stroke is Cerebrovascular disease where vascular can be taken as Siras in Ayurveda where Siras are Upadhatu of Rakta which indirectly act on Siras through Rakta. It is mainly given to prevent the reoccurrence of the disease.

Sahacharadi Kashaya

Sahacharadi Kashaya is simple formulation of 3 drugs namely Sahachara, Devadaru and Shunti explained in Vatavaydhi Chikitsa of Astanga Hrudayam[24] and Sahasrayogam. This is used mainly in the Vatavayadi like Gridrasi, Arditha, Pakshghata. All the drugs having Vata-Kapha Shamaka, Vedanaathapan, Shulahara, Shotahara and mainly Nadiuttejaka (nerve stimulant) properties along with strengthening and Nutritive therapy for musculature which is most needed in the Pakshaghata Patients which helps to relieves in the spasticity in affected Muscle.
As in this patient was a K/C/O of 20years of Rheumatoid arthritis, Sahacharadi Kashaya having Anti-inflammatory, Anti-Arthritic and Anti-oxidant action properties due to the presence of molecules such as Heptanediamide,N,N’-di-benzoxyloxy-Benzoic acid, Phenol, 2-methoxy, Eugenol, Tetradecanoic acid have proved the efficacy of Ayurvedic drugs in the treatment of Rheumatoid arthritis was given.

Overall effect of the treatment

Before starting any treatment in the Ayurveda assessment of Vyadhi Avastha, Roga Bala and Rogi Bala plays a very important role in planning the treatment. As in this patient was unable to Walk and Cannot do daily routine and due to Deergakala Vyadhi of Amavata does Vyadhikarshnata and patient was Krusha, Ksheena Bala. As when we see the treatment protocol for Pakshaghata in the first phase of treatment to increase the strength of the Patient, Sarvanga Abhyanga helps in strengthening of muscle fibres, ligaments, tendons, and other tissues of the body. Mrudu Nadi Sweda was adopted Swedana is the procedure that relieves Stambha, Gaurava, Sheeta which induces Swedana. After when patient started to walk with support and when able to go bathroom with support as a Mrudhu Shodhana as Sadyovirechana with Gandarvashtadi Taila as Snigdha Virechana, Basti is considered as Ardh Chikitsa. It is useful in vitiation of all Doshas, Rajayapana Basthi which is Sadyobalajananarthartha, In Astanga Sangraha while explaining the Pradhanyatha of Basti, Acharya Vagbhata explained that Basti is mainly for Vatapradhneshu, Shigram Bruhamana Kariyvamm hence forth in disease like Pakshaghata which is a kind of Apatarpanajanya Vyadhi, for Brimhanarthra and Vata Shamanarth, in the present case Basti Chikitsa is adopted. Physiotherapy is used throughout the treatment to increase joint range of motion and muscular flexibility. It is very useful for rehabilitation. Cap.Palsineuron it was administered to patient to tackle symptoms like weakness and stiffness in the muscle. Brihatvatchintamani Rasa contains Bhasmas of Swarna, Rajata, Abhraka, Loha, Parada Muktha, Suta and is indicated in Pakshaghata, All the drugs used in these are having Tridoshagna properties.

Nityanada Rasa and Arogya Vardhini Vati both Herbo-mineral preparation, having anti-inflammatory and Rasayana property can tackle the pathology. Sahacharadi Kashaya, Dhanvantarum Kashaya and Mahamanjishthadi Kashaya have different multiple action which helped in reducing the symptoms which helped after treatment. The holistic approach is necessary and important in this condition to increase the patient confident.

CONCLUSION

Pakshaghata is Vataja-Nanatmaja Vyadhi considered as Mahavatavayadhi and it difficult to manage. In the present study it was noted that Pakshaghata was associated with Rheumatoid Arthritis and Hypertension, so by assessing the Rogi Bala, Roga Bala and Vyadhi Avastha the treatment was adopted in phases with Snehana, Swedana and Mrudu Shodhana with Physiotherapy shown better results in Laskhanas of Pakshaghata and was able to walk with support and later Rajayapana Yoga Basti was administered. Basti Karma not only does the Srotodushi this also does the Panchavata Shamation, Dhatuposhana, Rasayana, Sirasnayu Poshana and Sadyobalajananarthakara. In this patient recovery was seen within month, which is suggestive of beneficial effective of Ayurvedic treatment. Thus, it can be concluded that Ayurvedic management is clinically highly significant in the treatment of CVD like Pakshaghata which can improve the quality of life of the Individual and reduces live lives of Dependence.

REFERENCES

How to cite this article: Rachana P. Badaji, Abdul Khader. Multifacet approach towards Pakshaghata - A Successive Case Study. J Ayurveda Integr Med Sci 2023;07:235-249, http://dx.doi.org/10.21760/jaims.8.7.45

Source of Support: Nil, Conflict of Interest: None declared.

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CASE REPORT

July 2023

ISSN: 2456-3110

7. https://www.physio-pedia.com/Barthel_Index
18. Bhaishajyaratnavalli by Kaviraj Govinda Das sen Edited with Hindi Commentary by Prof.Siddhi Nandan Mishra; Chapter 26 Vatavyadhirogadikara verse: 141-144 Chaukhambha Orientalia Edition:2015 Page no:
20. Rasaratna Samuchhaya

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