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# AYURVEDIC INTEGRATED MANAGEMENT OF *PAKSHAGHATA* WITH SPECIAL REFERENCE TO HEMIPLEGIA (ACUTE INFARCT) - A CASE STUDY

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# **ABSTRACT**

Pakshaghata is the major vyadhi of Vata dosha. In pakshaghata, the patient usually presents with a loss of function or weakness in one half of the body. The diseases pakshaghata, paksavadha, and Ekangaroga are all synonyms. Pakshaghata is a neurological condition characterized by an inability to move a set of muscles on either the left or right side of the body. Hemiplegia is usually the result of a cerebrovascular problem or stroke, and most cerebrovascular diseases exhibit themselves with the emergence of a focused neurological deficiency. Pakshaghata is mentioned in the Charaka Samhita, the Susruta Samhita, and the Madhava Nidana. The patient in this case study is a 57-year-old man who has weakness in his right half of his body and is unable to walk. He was a patient who presented with acute infarct noted in the pons on Left Side in M.R.I. brain. The Ayurvedic diagnosis of Pakshaghata was made and treated using Ayurvedic medicine, which included procedures such as virechana, shodhana chikitsa, and shamana chikitsa (oral medications), as well as ekangvir rasa, Hingwashtakchurna, Jivhadi kadha, Gandharva haritaki choorna, and others. At various stages physiotherapy was used. At the conclusion of the treatment, the upper and lower extremity functions had improved the most. In terms of speech and mobility, the patient made a spectacular recovery.

**KEYWORDS:** Pakshaghata, Hemiplegia, Acute Infarct, Panchakarma, Shamana chikitsa, Physiotherapy.

# INTRODUCTION

Pakshaghata is a neurological condition in which one side of the body experiences muscle weakness or partial paralysis, which can affect the arms, legs, and face muscles. The cortico-spinal tract, a route of neurons that begins in the motor parts of the brain, projects down through the internal capsule, and then travels down the spinal cord into the motor neurons that control each muscle, is the primary controller of movement. According to Ayurveda Pakshaghata is a serious sickness that is mentioned in the Vataja nanatmaja vyadhi. The karmendriyas gyanendriyas and manas indriyas are impaired. It has been linked to hemiplegia after a CVA stroke. According to the WHO, 15 million people worldwide are affected. In India, there are about 200 strokes per 100,000 people. Due to the prominence of vata dosha affects the function of sira, snayu, and

kandara. charak included it in the[1] nanatmajavyadhi and Madhyamarogamarga. According to Charaka, prakupita vayu will occur in half of the body and It will produce sankoch and tod in one hand and leg by vishoshana of shira and snayu present there. Sarvang roga refers to when the entire body is afflicted. [2] When Vayu reaches urdhvagami, Adhogami, and Tiryagami dhamani, this prakrutivayu destroys any half of the body, as well as the sandhibandh. When blood circulation to a portion of the brain is disrupted or substantially diminished, brain tissue is deprived of oxygen, and brain cells begin to die within minutes.<sup>[3]</sup> There are two types of stroke: ischemic and hemorrhagic. Ischemic strokes are caused by a lack of blood flow, while hemorrhagic strokes are caused by bleeding and result in a part of the properly.<sup>[4]</sup> brain functioning Currently, Panchakarma therapy is widely used to treat patients suffering from a variety of ailments using Ayurvedic

principles. Panchakarma refers to five procedures: Vamana (therapeutic emesis), Virechana (purgation), Asthapanabasti (enema with medicated decoction), Anuvasanabasti (enema with medicated oil), and Shirovirechana/Nasya (nasal administration medicines) and other linked therapies, such as Snehana (Oleation), Swedana (Fomentation) are Poorvakarma of Panchakarma. Panchakarma is effective in the treatment neurological illnesses including paralysis. [5] Physiotherapy, in addition to *Panchakarma*, is a "handson" manual therapy that aids in the rapid healing and rehabilitation from Pakshaghata. Ayurveda has been able to provide considerably better results, and panchakarma therapy has proven to be a better treatment therapy for pakshaghata, as seen in the instance below, which was treated at the Ayurved Seva Sangh's Arogyashala Rugnalaya in Nashik, Maharashtra, India.

# **CASE REPORT**

A patient of 57 years aged, married male from Nashik, Maharashtra was brought to Kayachikitsa Out patient department of Ayurved Seva Sangh's Arogyashala Rugnalaya Nashik Maharashtra on 11/11/2021 with complaints reduced strength in the right upper and lower limbs with associated complaints unable to walk and slurred speech since afternoon of 11th November 2021. The subject was a previously known diagnosed case of Ischemic Heart Disease, Diabetes Hypertension, Epilepsy. After taking case history, Vitals and observing General condition patient advice for M.R.I. brain and angiogram. After a few hours the patient returned with his M.R.I. brain and angiogram reports suggested acute infarct noted in the pons on Left Side, All ill defined gliotic area noted in left frontal region, Mild luminal narrowing noted in M3, M4 segments of left MCA. He underwent Ayurvedic treatment for the same and was discharged after remarkable improvement. He sought Ayurvedic care to regain normal functions of both the limbs of right side and speech.

# 1. History

As per the statement of the by-stander, patient was healthy in morning and he had a sudden fall down on afternoon 11/11/2021, and later developed complaints like reduced strength in the left upper and lower limbs with associated complaints of difficulty in walking and slurred speech. He came to our Ayurved Seva Sangh's Arogyashala Rugnalaya Nashik Maharashtra. His blood pressure was 140/90 mm of Hg, Temperature 98.6 Degree Fahrenheit, with only limited movements observed in the right limbs (Power 0/5) and unaffected left limbs (power 5/5). There is a history of Ischemic Heart Disease, Diabetes Mellitus, Hypertension, Epilepsy. No past history of head injury, Bronchial asthma, Hyper and Hypo thyroidism could be elicited. patient advice for M.R.I. brain and angiogram. After a few hours the patient returned with his M.R.I. brain and angiogram reports and diagnose as a case of pakshaghata (acute infarct) So, he got admitted in our hospital From 11/11/2021 to 02/12/2021.

Name - ABC

Occupation - Security guard Age/Sex - 57yrs/Male.

# 1.1. Past history

# 1.1.1. Known case of

Ischemic Heart Disease since 25 yrs. Diabetes mellitus since 20 yrs. Hypertension since 20 yrs. Epilepsy since 5 months.

#### 1.1.2. Surgical history: None.

**1.1.3. Addiction history:** Alcohol consumption since 3 years back.

Bidi smoking since 20 years back.

- **1.1.4. Family history:** No evidence of this type of disease in the family.
- **1.1.5. Drug history:** Allopathy treatment for Ischemic Heart Disease since 25 yrs (Tb.Ecosprin gold 20mg OD), Diabetes mellitus since 20 yrs(Tb.Telneglip M 20/500mg B/L, Tb.Glimisave M1 1/500mg B/L and B/D, Inj. Lantus 15 unit SC on 10PM), Hypertension since 20 yrs (Tb. Telmijak 40mg OD), Epilepsy since 5 months (Tb. Leveder 500mg).

#### **1.1.6. Genetic history:** None.

**1.1.7. Socio-economic history:** Patient belongs to lower middle class, living in sub urban area of Nashik, Maharashtra.

# 2. Chief complaints

Difficulty in walking (kuryaat cheshtaa nivrattih), Slurred speech (vaksang), Headache (shirshul), General weakness (samanya daurblya), loss of movements of Right side upper and lower limb (Ardhakaayastasyaakarmanyo Vichetanam).

**2.1. Associated complaints:** Incomplete defecation, Loss of appetite.

# 3. Examinations

Patients is carried to the OPD Department with poor general condition, weight 65 kg, height 170.6 cm, pulse rate 78/min regular, afebrile (98.60<sup>0</sup> f), BP-140/90 mm of Hg, no pallor, dry coated tongue, no icterus, no gross lymphadenopathy, no clubbing or cyanosis, no skin lesions.

# 3.1. Physical examination

| Blood pressure   | 140/90 mm of hg      |
|------------------|----------------------|
| Pulse rate       | 78/min               |
| Respiratory rate | 18/min               |
| Temperature      | 98.60 <sup>0</sup> f |
| Edema            | No                   |
| Pallor           | No                   |
| Icterus          | No                   |
| Clubbing         | No                   |

# 3.2. Ashtasthana Pariksha

| Nadi(Pulse)           | Vatapradhana kapha |
|-----------------------|--------------------|
| Mala(Stool)           | Vibhandata         |
| Mutra(Urine)          | 8-10 times per day |
| Jivha(Tongue)         | Saama              |
| Shabda(Speech)        | Vakstambha         |
| Sparsha(Tactilation)  | Samashitoshna      |
| Druk(Eyes)            | Prakruta           |
| Akriti(Anthropometry) | Madhyama           |

# 3.3. Systemic Examination

- 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.

# • Central nervous system

# **Higher functions**

- Consciousness- Fully conscious.
- Orientation Fully oriented to time, place and person.
- Memory Intact.
- Behaviour friendly.

#### **Cranial Nerve Examination**

 Facial Nerve Examination – Asymmetry of Face (Deviation of mouth to Left Side).

#### **Motor functions**

Gait: Unable to walk

# **Power**

- Right Upper and Lower limb- 0/5
- Left Upper and Lower limb- 5/5

#### Reflexes

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

# Tone

• right upper and lower limb was found to be hypotonic (when compared to left side).

Sensory functions are normal.

# **Sensory system Examination**

Superficial sensation – Within normal limits.

Deep sensation - Within normal limits.

Cortical sensation - Within normal limits.

# 4. Clinical Finding

 M.R.I. Brain with Angiography done on 11<sup>th</sup> November 2021 shows,

Acute infarct noted in the pons on left side.

All ill defined gliotic area noted in left frontal region.

Generalized cerebral and cerebellar atrophy noted.

Chronic small vessel ischemic changes noted in bilateral periventricular and fronto parietal deep white matter.

Mild luminal narrowing noted in M2, M3 segments of left MCA.

Focal stenosis noted in theP1 segment of right PCA.

• 2D ECHO done on 12<sup>th</sup> November 2021 shows,

Ischemic Heart Disease.

Overall LVEF of 20 %.

Diastolic dysfunction of left ventricle.

Mild tricuspid regurgitation.

Mild pulmonary arterial hypertension.

• Serum electrolyte done on 11<sup>th</sup> November 2021,

Serum sodium -135.8 mmol/L.

Serum potassium -4.18 mmol/L.

Serum chlorides –96.0 mmol/L.

 Liver Function Test done on 11<sup>th</sup> November 2021 shows.

Total Bilirubin - 1

Direct Bilirubin -0.6

Indirect Bilirubin – 0.4

SGOT (AST) -28

SGPT (ALT) -35

• Urine Examination done on 11<sup>th</sup> November 2021 shows,

Albumin - Trace

Pus cells -4-5 / HPF RBC - 0 - 2 / HPF

Epithelial cells -5 - 10 / HPF

Some other investigations done on 12th November 2021 shows,

Serum creatinine -1.2 mg/dl

HBA1C - 10.7%

Average Blood Glucose (ABG)-260.4mg/dl

Some other investigations done on 16 November 2021 shows.

Prothrombin time – 20.0 seconds

Laboratory Investigations Hematological investigations were done on Date - 11 November 2021 shows,

HB -12.8 gm% WBC - 10500/cmm Platelet - 247000 / cmm

HCT - 38.8 % MCV - 72.1 fL MCH -23.8 pg

MCHC -33.1 gm/dl RDW-CV -37 %

RDW-SD-13.5 fL

MPV - 10.6 fL PDW -13.4 fL

# 5. Diagnosis

On the basis of clinical presentation and M.R.I. Brain with angiography it was diagnosed as a case of pakshaghata (Acute Infarct).

# 6. Treatment Advised

Table 1: Emergency Allopathy Medications.

| Sr.No | Name of Medicine                     | Date                     | Number of Days |
|-------|--------------------------------------|--------------------------|----------------|
| 1     | Inj. Clavum 1.2 gm + IV NS 100ml BD  | 11/11/2021 to 17/11/2021 | 7              |
| 2     | Inj. Clexane 0.6 SC OD               | 11/11/2021 to 15/11/2021 | 5              |
| 3     | Inj. Strocit 500 mg IV BD            | 11/11/2021 to 17/11/2021 | 7              |
| 4     | Inj. Piracetam 300 mg IV BD          | 11/11/2021 to 17/11/2021 | 7              |
| 5     | Inj. Lantus 10 unit SC on 10PM       | 11/11/2021 to 17/11/2021 | 7              |
| 6     | Tb.Rosuvastatin 20 mg OD             | 11/11/2021 to 02/12/2021 | 21             |
| 7     | Tb.Leveder 500 mg OD                 | 11/11/2021 to 02/12/2021 | 21             |
| 8     | Tb.Telneglip M 20/500 mg B/L         | 11/11/2021 to 02/12/2021 | 21             |
| 9     | Tb.Telmijak 40 mg OD                 | 11/11/2021 to 02/12/2021 | 21             |
| 10    | Tb.Glimisave M1 1/500 mg B/L and B/D | 11/11/2021 to 02/12/2021 | 21             |
| 11    | Tb.Serenace 0.25 mg HS               | 11/11/2021 to 02/12/2021 | 21             |
| 12    | Tb.Ecosprin gold 20 mg OD            | 11/11/2021 to 02/12/2021 | 21             |
| 13    | Tb.Dytor plus 10 mg OD               | 11/11/2021 to 02/12/2021 | 21             |
| 14    | Tb.Carbis 2.5 mg OD                  | 11/11/2021 to 02/12/2021 | 21             |
| 15    | Tb.Clopitab A 75/75 mg OD            | 11/11/2021 to 02/12/2021 | 21             |
| 16    | Tb.Tayo 60K OD                       | 11/11/2021 to 18/11/2021 | 8              |
| 17    | Tb.Homocheck OD                      | 11/11/2021 to 02/12/2021 | 21             |
| 18    | Tb.Dapnat 10 mg OD                   | 17/11/2021 to 02/12/2021 | 14             |
| 19    | Tb.Carloc 3.125 mg OD                | 17/11/2021 to 02/12/2021 | 14             |

Table 2: Ayurvedic Internal Medications.

| Sr.No | Name of Medicine                    | Dose   | Time                     | Anupana                         | Date                     | Number of Days |
|-------|-------------------------------------|--------|--------------------------|---------------------------------|--------------------------|----------------|
| 1     | Ekangvir rasa                       | 125 mg | 2 times After<br>Food    | (Koshnajala) Luke<br>Warm Water | 11/11/2021 to 02/12/2021 | 21             |
| 2     | Shankhavati                         | 250 mg | 2 times After<br>Food    | (Koshnajala) Luke<br>Warm Water | 11/11/2021 to 02/12/2021 | 21             |
| 3     | Gandharva haritaki<br>churna        | 3 gm   | Bed Time                 | (Koshnajala) Luke<br>Warm Water | 11/11/2021 to 02/12/2021 | 21             |
| 4     | Jivhadi kadha                       | 20 ml  | 2 times Before<br>Food   | (Koshnajala) Luke<br>Warm Water | 11/11/2021 to 02/12/2021 | 21             |
| 5     | Panchakolasava                      | 20 ml  | 2 times After<br>Food    | Regular Water                   | 11/11/2021 to 02/12/2021 | 21             |
| 6     | Hingvashtaka choorna                | 1 gm   | 2 times Before<br>Food   | Ghee                            | 11/11/2021 to 02/12/2021 | 21             |
| 7     | Virechana with<br>Trivruttaavalaeha | 30 gm  | Morning Empty<br>Stomach | (Koshnajala) Luke<br>Warm Water | 11/11/2021 to 02/12/2021 | 21             |

Table 3: Showing details of treatment given to patient.

| Sr.No | Procedure   | Date                     | Number of Days |
|-------|---|--------------------------|----------------|
| 1     | Jihwa nirlekhana with Vacha choorna and Akarakarabha choorna                | 13/11/2021 to 02/12/2021 | 21             |
| 2     | Physiotherapy   | 13/11/2021 to 02/12/2021 | 21             |
| 3     | Dakshin Hastapada pradeshi Pratisarana with Narayana<br>taila               | 13/11/2021 to 02/12/2021 | 21             |
| 4     | Dakshin Hastapada pradeshi Abhyanga with Narayana<br>taila and Nadi swedana | 26/11/2021 to 02/12/2021 | 08             |
| 5     | Yoga Basti<br>Dashamula Niruha basti<br>Anuvasana basti with Til taila      | 26/11/2021 to 02/12/2021 | 08             |

Table 4: Showing details of Virechana karma given to patient.

| Sr. No | Date       | Procedure   | Pathya and Apathya  |
|--------|------------|---|---|
| 1      | 18/11/2021 | Shodhanartha Snehapana -<br>Tiktaka Ghrutpana 30ml  | Hold all <i>Shamana Chikitsa</i> , <i>Pathya</i> - Luke Warm Water (Koshnajala)                                       |
| 2      | 19/11/2021 | Shodhanartha Snehapana -<br>Tiktaka Ghrutpana 60ml  | Hold all <i>Shamana Chikitsa</i> ,  Pathya - Luke Warm Water (Koshnajala)   |
| 3      | 20/11/2021 | Shodhanartha Snehapana -<br>Tiktaka Ghrutpana 90ml  | Hold all <i>Shamana Chikitsa</i> ,  Pathya - Luke Warm Water (Koshnajala)   |
| 4      | 21/11/2021 | Shodhanartha Snehapana -<br>Tiktaka Ghrutpana 120ml   | Hold all <i>Shamana Chikitsa</i> ,  Pathya - Luke Warm Water (Koshnajala)   |
| 5      | 22/11/2021 | Sarvanga Snehana with Til taila<br>and Nadi Swedana   | Hold all Shamana Chikitsa,<br>Pathya - Luke Warm Water (Koshnajala)   |
| 6      | 23/11/2021 | Sarvanga Snehana with Til taila<br>and Nadi Swedana   | Hold all Shamana Chikitsa,<br>Pathya - Luke Warm Water (Koshnajala)   |
| 7      | 24/11/2021 | Virechana Karma: Purvakarma — Sarvanga snehana with til taila and Nadi swedana Pradhankarama — Trivruttaavaleha 30 gm with luke warm water (Koshnajala) | Hold all <i>Shamana Chikitsa</i> ,  Pathya - Luke Warm Water (Koshnajala),  RajgiraLaddu and Salilahya  Dinner – peja |
| 8      | 25/11/2021 | Pashyatkarma –<br>Sansarjanakrama Day 1 <sup>st</sup>   | Hold all <i>Shamana Chikitsa</i> ,<br>Lunch – <i>Mudga kadhana</i><br>Dinner – <i>Mudga Khichadi</i>                  |
| 9      | 25/11/2021 | Pashyatkarma –<br>Sansarjanakrama Day 2 <sup>nd</sup>   | Start all <i>Shamana Chikitsa</i> ,<br>Lunch – <i>Varan bhata</i><br>Dinner – <i>Sampurna aahara</i> .                |

Table 5: Duration and doses.

| Drug     | Niruha – Dashamula niruha basti.<br>Anuvasana – Til Taila                      |
|----------|--|
| Dose     | Niruha – 660 ml<br>Anuvasana – 80 ml   |
| Kala     | Niruha – Abhukta<br>Anuvasana – Adrapaninam bhojana (immediately after meals)  |
| Duration | Yogabastikarma:<br>D1,D3,D5,D7,D8 – Anuvasana basti<br>D2,D4,D6 – Niruha basti |

Table 6: Ayurvedic Medication prescribed on discharge for 10 days.

| Sr.No | Name of Medicine                        | Dose       | Time               | Anupana           |
|-------|---|------------|--------------------|-------------------|
| 1     | Ek an anin masa                         | 125 ma     | 2 times After Food | (Koshnajala) Luke |
| 1     | Ekangvir rasa 125 mg 2 times After Food | Warm Water |                    |                   |

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| 2 | Shankhavati               | 250 mg | 2 times After Food  | (Koshnajala) Luke<br>Warm Water |
|---|---------------------------|--------|---------------------|---------------------------------|
| 3 | Gandharva haritaki churna | 3 gm   | Bed Time            | (Koshnajala) Luke<br>Warm Water |
| 4 | Jivhadi kadha             | 20 ml  | 2 times Before Food | (Koshnajala) Luke<br>Warm Water |
| 5 | Panchakolasava            | 20 ml  | 2 times After Food  | Regular Water                   |
| 6 | Hingvashtaka choorna      | 1 gm   | 2 times Before Food | Ghee                            |

Table 7: Allopathy Medication prescribed on discharge for 10 days.

| Sr.No | Name of Medicine                     |
|-------|--------------------------------------|
| 1     | Inj. Lantus 10 unit SC on 10PM       |
| 2     | Tb.Rosuvastatin 20 mg OD             |
| 3     | Tb.Leveder 500 mg OD                 |
| 4     | Tb.Telneglip M 20/500 mg B/L         |
| 5     | Tb.Telmijak 40 mg OD                 |
| 6     | Tb.Glimisave M1 1/500 mg B/L and B/D |
| 7     | Tb.Serenace 0.25 mg HS               |
| 8     | Tb.Ecosprin gold 20 mg OD            |
| 9     | Tb.Dytor plus 10 mg OD               |
| 9     | Tb.Carbis 2.5 mg OD                  |
| 10    | Tb.Clopitab A 75/75 mg OD            |
| 11    | Tb.Tayo 60K OD                       |
| 12    | Tb.Homocheck OD                      |

#### RESULT

The condition of the patient improved gradually along with the course of the treatment. Patient got symptomatic relief after Ayurveda Treatment and improvement was seen in incomplete defecation, loss of appetite, slurred speech was reduced and improved loss of muscle power in right upper and lower limbs.

Table 6: Assessment of results.

| Upper and Lower limb  | On 1 <sup>st</sup> day | On 7 <sup>TH</sup> day | On discharge      |
|-----------------------|------------------------|------------------------|-------------------|
| Power                 | 0/5                    | 1/5                    | 5/5               |
| Tone                  | Hypotonic              | Hypotonic              | Hypertonic        |
| Involuntary movements | Present                | Reduced                | Absent            |
| Reflex                | +                      | Improved               | ++ (Brisk/Normal) |
| Speech                | Slurred                | Improved               | Normal            |

# MATERIALS AND METHODS

Centre of study: Ayurved Seva Sangh's Aarogyashala Rugnalaya, ICU Department, Nashik, Maharashtra, India.

#### DISCUSSION

Pakshaghata is Pradhana vat vyadhi. According to acharya charaka. snehana, swedana, mruduvirechana, murdhanitaila i.e. shirodhara, shirobasti, shiropichu, and shirovirechana have properties such as relaxing, soothing, and calming effects on the body and mind, as stated by acharya charaka and sushruta. In the pakshaghata, it has been observed that shamana and shodhana chikitsa are effective. The usage of virechana treatment has relief in pakshaghata. Daha, virechan therapy enhances the *cheshtanivritti* of extremities such as Achetana, 7 Ruja, guruta, shoth, and Mridutva is achieved through sthanikabhyanaga and Sthanik

swedana, which relieves stiffness and discomfort. It also increases blood circulation, which offers sufficient nutrients to the diseased area, as well as Shamana aushadhi such as Vatashamaka and balya, which are given to the patient. Snehana Abhyanga (oleation) -Snehana Abhyanga is one of the Dinacharya and is an ancient Indian Ayurvedic technique for healing, relaxing, and treating a variety of ailments. [6]

Abhyanga (Oleation) - Abhyanga entails rubbing the body in the same direction as hair follicles with any Snehas (fats). The body gets strong and stable, and the skin becomes Drudha and excellent by anointing it with oil, which acts on vitiated Vata, and the body becomes capable of withstanding fatigue and exercise, much as the pot, leather, and axle of the cart become strong and efficient by oiling. If there is complete Vata vitiation without any form of association (obstruction), it should be addressed with oleation therapy initially. Snehana is highly important in such a situation. It balances the *Vata doshas* and provides *Pushti prasada* (food for the *dhatus*). When *Abhyanga* is performed for a long enough period of time, the oil reaches the various *Dhatus*. As a result, it is apparent that the strength of the medicine in the oil gets absorbed into the skin. it relieves the symptoms of that *dhatu's* ailments.

Swedana (fomentation) - Swedana encourages people to sweat. Mala is a sort of sweda. Sweda helps to clear the body of impurities. Dhatvagni and Bhutagni are linked to Sweda. Swedana medicines by Ushna and Tikshnaguna can penetrate the microcirculatory channels (Srotas) and trigger the sweat glands, causing them to produce more sweat. After dilatation of the micro channels, Laghu and Snigdhadosha enter the channels and lead them to go towards Kostha or excrete them through the skin's micropores as sweat, resulting in Strotoshodhana With the use of Vamana or Virechana therapy, the Dosha brought in Kostha is evacuated from the body. [8]

Virechana (purgation) - Virechana is the procedure for expelling the Doshas through Adhomarga, i.e. Guda. This Karma is mostly used to reduce Pitta doshas. Virechana Therapy results in the purification of circulation channels, the clarity of sense organs, the lightness of the body, a rise in energy, and the promotion of health. Virechana Drugs are ushna (hot), Tikshna (sharp), Sukshma (subtle), Vyavayi (pervades the entire body before being digested), and Vikasi (causing looseness of joints). Virechana dravya reaches the heart and circulates throughout the body through the vessels due to their inherent efficacy. They liquefy the compact Doshas due to their Agneya character. They separate the adhering Doshas in the channels of the entire body due to their Tikshna guna. This hazardous substance enters the stomach due to its natural ability to travel through tiny channels and flow towards the gastrointestinal system. The Doshas or diseased material are expelled down the descending tract due to the predominance of Prithvi and Jalamahabhutas in Virechana medicines, and their special action (prabhava) to go downwards (anus).<sup>[9]</sup>

Basti (Enema) - When Basti is brought into the Pakwashaya, the Veerya of Basti reaches all throughout the body, collects the collected Doshas and Shakrut from the Nabhi, Kati, Parshwa, and Kukshi pradeshas, gives the body Snehana, and expels the Dosha together with Pureesha. It is 'amrutopamam' for patients with Kshina Majja, Shukra, and Oja, according to Charakacharya, and has properties such as Balya, Brimhana, and Pushtikara. [10]

Asthapana/Kashaya/Niruha Basti (Decoction based enema) - Dashamula Niruha Basti, In Niruha basti Madhu possesses Yogavahi and Sukshma marga anusarita, functions as a catalyst, penetrating the Sukshma Srotas. The Laghu and Tridosha Shamaka gunas were introduced to the Saindhava lavana. The

Snigdha guna of Sneha dravya (Til tail) combats the Ruksha and Laghu gunas of Vata, resulting in Vata Shamana. The major medicines, Kalka (Triphala, Bala), are the ones that give the overall combo its power. It aids in the disintegration of Mala. Kwatha performs Dosha Anulomana and Nirharana. [11]

Anuvasana/Sneha Basti (Oil based enema) - Anuvasana Basti with Til taila, Anuvasana basti will hold the oil for a set period of time without generating any negative effects. Pureeshadhara kala is protected by the Snehana effect. Til Taila, which has Guru and Snigdha gunas, combats Vata's Ruksha and Laghu gunas, resulting in Vata shamana. While reviewing the Anuvasana Basti, Acharya Charaka notes Sneha's digestion with the words "Sneham Pachati Pavakah," and after digestion, Dravyas can be taken to cause the effect on the body. [12]

Nirlekhana Jihwa - Jihwa Nirlekhana was performed with Vacha Choorna and Akarakarabha Choorna, both of which are quite efficient in the treatment of speech disorders. Vacha holds a special place in Ayurveda because it is a key Medhya medicine that has the ability to improve memory and cognition. Vacha is classified as Lekhaniya and Sanjnasthapana Mahakashaya by Acharya Charaka. As a nervine tonic, Vacha has a unique power (Prabhava). It balances Vata and Kapha due to these qualities. Due to the properties of Pramathi and Lekhana, it disintegrates the Kleda, Meda, Lasika, Sweda, and Vasa and eliminates the Mala, Kapha, and Pitta from the Srotas. Katu Rasa dilates all relevant channels, resulting in the "Strotansi Vivrunoti" effect. [13]

**Physiotherapy** - Physiotherapy is a therapeutic practice that focuses on the science of movement and assists patients in restoring, maintaining, and optimizing their physical strength, function, motion, and general wellness. Physiotherapy is used throughout the treatment to increase joint range of motion and muscular flexibility. The goal of physiotherapy in this setting is to enhance joint integrity and muscular flexibility, as well as to meet any delayed developmental milestones as soon as feasible. Increased circulation to all four limbs and brief pain alleviation are among the other advantages. Considering the spasticity, joint mobility and flexibility were achieved with Range of Motion (ROM) exercises, passive stretching, and peripheral joint mobilization. Proper Ayurvedic management, as well as speech therapy, physiotherapy, and other rehabilitation methods assist the patient in becoming self-sufficient. [14]

# CONCLUSION

Pakshaghata is a vatapradhana disease that results in the loss of function of one half of the body, similar to hemiplegia. Due to the closeness of symptoms, it can be linked to Clumsy hand syndrome in this case. The therapy protocol in this study, on the other hand, was planned according to Acharya Charaka's Dosha and Sthana Dushti. According to Vyadhi Avastha, Rogi Bala,

and *Dosha Bala*, the patient was given *Sthanika Chikitsa*, *Virechana karma* and *Basti karma*, as well as *Shamana Aushadhi* and Physiotherapy. This case study highlights the use of *Ayurvedic* medicine to successfully manage *Pakshaghata* (acute infarct). These were utilized in this case, and the patient received good outcomes. Physiotherapy was administered. After completing treatment, the patient was entirely recovered. As a result, it can be concluded that *Panchakarma* procedures are very beneficial in *Pakshaghata chikitsa* and should be used aggressively in patients suffering from stroke and other related disorders.

#### DECLARATION OF THE PATIENT CONSENT

Written consent of the patient had been taken for publication of this case study.

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