Pakshaghat and its Management through Panchakarma: A Case Study

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Abstract

Vata among tridosha is considered as the controller of everything in the Sharira. Vitated Vata itself effects the Dusyas which pervades the entire body or a part of it and gives rise to different types ailment is called Vatavyadhi. Pakshaghata is one of the important diseases of such criteria which is popularly known as Hemiplegia. A 60 years old male Patient, K/C/O of HTN Since 3 year & Stroke 3 Months ago complaining of Kinchita Vak-Aspastata (incomplete speech), Bhar-Vruddhi (Heaviness of left limbs), Vama bahu Karma alpata (Left upper limb weakness), Vama amsha sandhi stabhata (Left shoulder stiffness) since 3 Month. Patient was on various treatment methods for the past 2 months but did not get complete improvement. He came to Parul Ayurveda Hospital. The patient was treated with Panchakarma procedure, Shamana Aushadhi and Physiotherapy. This study shows the effective result of Panchakarma treatment along with Shamana Aushadhi and Physiotherapy in Pakshaghat disease. It also helps to understand the pathophysiology of Pakshaghat through Ayurveda. In this study an attempt has been made to describe all Scientific effect of Panchakarma procedures, Shamana Aushadhis and effect of Physiotherapy has been explained in this case.

Key Words: Pakshaghat, Panchakarma procedure, Shamana aushadhi.
### Past history
- H/O Hypertension Since 2 years - On medication since 3 years (Tab Atenolol IP 50 mg 1-0-0 A/F)
- H/O CVA Stroke 3 Months back (Tab Atorvastatin 40 mg 0-0-1 A/F)
- Not K/C/O - Allergy, Typhoid, Malaria, Dengue.
- No H/O – Trauma or Accidental Injury

### On Examination
- General condition: Moderate
- Pulse Rate: 75/min
- BP: 140/80 mm of Hg
- RR: 18/min
- HR: 76/min
- Mala: Samyak
- Kostha: Mrudu
- Mutra: Regular
- Nidra: Sound
- Kshudha: Samyak
- Jihva: Liptha

### Central Nervous System Examination

#### HMF-Higher Mental Function
- Consciousness: Fully Conscious
- Orientation to:
  - Time: Intact
  - Place: Intact
  - Person: NAD
- Memory:
  - Immediate: Intact
  - Recent: Intact
  - Remote: NAD
- Hallucination and Delusion: Absent
- Speech disturbance: Absent
- Handedness: Right

#### Cranial Nerve Examination
- Olfactory: Smell sensation Intact
- Optic: Color vision NAD

#### Oculomotor, Trochlear, Abducent Nerve
- Eye ball movement: Possible in all directions
- Pupil:
  - Position: NAD
  - Shape: NAD
  - Size: NAD
  - Symmetry: NAD
- Ptosis: Absent

#### Trigeminal
- Sensory:
  - Touch, Pain and pressure sensation: Intact
- Motor:
  - Clenching of teeth: Possible
  - Lateral movement of Jaw: Possible

#### Facial
- Forehead frowning: Possible, Equal in both sides
- Eyebrow raising: Possible, Equal in both sides
- Eye closure: Possible, Equal in both sides
- Teeth showing: Normal
- Blowing of cheek: Possible

#### Glossopharyngeal and Vagus
- Position of uvula: Centrally placed
- Taste sensation: Intact
- Gag reflex: Normal

### Hypoglossal
- Protrusion of tongue: Complete protrusion possible
- Tongue movements: Possible

### Motor
- Involuntary Movements: Absent

#### Muscle Bulk
- RT: 27.5 cm
- LT: 26.5 cm

#### Muscle Tone
- RT: Normal
- LT: Diminished

#### Power
- Upper limb: N
- Lower limb: N

#### Coordination
- Upper limb: Finger nose test coordination present
- Lower limb: Knee heel test present

### Gait
- Normal

### Reflex
- Abdominal reflex: Present

#### Deep Reflex
- Biceps jerk: Normal
- Triceps jerk: Normal
- Knee jerk: Normal
- Ankle jerk: Normal
- Clonus - Patella: Absent
- Clonus - Ankle: Absent
- Babinski reflex: Absent

### Sensory System
- Superficial
  - Touch: Intact
  - Temperature: Intact
  - Pain: Intact
- Deep
  - Crude touch: Present
  - Vibration: Present
  - Pressure sense: Present
Table 1: Observation

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Signs and Symptoms</th>
<th>Before Treatment</th>
<th>After treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Facial deviation</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Shoulder elevation</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Sensory Aphasia</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>Trunk balance</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>Elbow-flexion –extension</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>Forearm supination-pronation</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>Wrist flexion-extension</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>Grip power</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>While no initiation Holding of object</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>10</td>
<td>Grasp objects</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>11</td>
<td>Release of object</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>12</td>
<td>Catching of object</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>13</td>
<td>Throwing of object</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>14</td>
<td>Tying the knot</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>15</td>
<td>Clothing</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>16</td>
<td>Feeding with hand</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>17</td>
<td>Holding and drinking glass of water</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>18</td>
<td>Standing without support</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>19</td>
<td>Standing balance</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>20</td>
<td>Squatting</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>21</td>
<td>Getting up from squatting position</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>22</td>
<td>Climbing the stairs</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>23</td>
<td>Toilet activity</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>24</td>
<td>Bathing</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>25</td>
<td>Crossing the road</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>26</td>
<td>Tingling sensation</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 2: Muscle power

<table>
<thead>
<tr>
<th>SR NO.</th>
<th>BEFORE TREATMENT</th>
<th>AFTER TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extremities</td>
<td>Grades</td>
</tr>
<tr>
<td>1</td>
<td>Rt. Upper Limb</td>
<td>5- Normal Power</td>
</tr>
<tr>
<td>2</td>
<td>Rt. Lower Limb</td>
<td>5-Normal Power</td>
</tr>
<tr>
<td>3</td>
<td>Lt. Upper Limb</td>
<td>4-Movement against gravity and some resistance.</td>
</tr>
<tr>
<td>4</td>
<td>Lt. Lower Limb</td>
<td>4- Movement against gravity and some resistance.</td>
</tr>
</tbody>
</table>

Table 3: Intervention

<table>
<thead>
<tr>
<th>Date</th>
<th>Shamana</th>
<th>Shodhana</th>
</tr>
</thead>
</table>
| 10-12-2020 to 12-12-2020 | • Aampacak vati- 2-0-2 B/F  
                    | • Tapyadi loha-2BDA/F  
                    | • Cap Palsineuron 2BD A/F  
                    | • Sutshekar rasa 2BD A/F  
                    | • Phalatrikadi Kashaya- 30 ml BD B/F  
                    | • Pathyadi kashya 30 ml BD B/F | • Sarvanga Udavartana with Yava Lotta+ Triphala churna followed by Nadi sweda.  
                    |                                                                 | • Physiotherapy                                                              |
| 12-12-2020 to 18-12-2020 | • Aampacak vati- 2-0-2 B/F  
                    | • Sutshekar rasa 2BD A/F  
                    | • Phalatrikadi Kashaya- 30 ml BD B/F  
                    | • Pathyadi kashya 30 ml BD B/F | • Shirodhara with Jatamansi oil.                                                                 |
                    |                                                                 | • Physiotherapy  
                    |                                                                 | • Plan for Virechana karma  
                    |                                                                 | • Shodhanartha Snehapan with Guggul Tikta ghrita  
                    |                                                                 | • Sarvanga Abhyanga with Nirgundi Tail followed by Patra Pinda Sweda |
Deepana Pachana from 12-12-2020 to 18-12-2020 was done in which Nirama lakshans were observed. From 19-12-2020 to 21-12-2020 Abhyantra Snehapana with Guggul Tikta Ghrita was given to the patients. Until Samyak Snigdha lakshana appears.

Vishrama Kala from 22-12-2020 to 24-12-2020 Sarvnaga Abhyanga with Nirgundi Tail followed by Patra Pinda Sweda.

### Table 4: Dose of Snehapana

<table>
<thead>
<tr>
<th>Date</th>
<th>Intake time</th>
<th>Dose</th>
<th>Time of Hunger</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-12-2020</td>
<td>6:45 AM</td>
<td>30 ML</td>
<td>11:40 AM</td>
</tr>
<tr>
<td>20-12-2020</td>
<td>7 AM</td>
<td>50 ML</td>
<td>12:30 PM</td>
</tr>
<tr>
<td>21-12-2020</td>
<td>6:50 AM</td>
<td>90ML</td>
<td>1:45 PM</td>
</tr>
</tbody>
</table>

Daily Jiryamana and Jirna lakshnas were noted. After achievement of Samyak Sneha Lakshana- Abhyanga with Nirgundi Tail followed by Patra Pinda Sweda was done for 3 days.

On Virechan Karma day, first Abhyanga with Nirgundi Tail and Nadi Sweda was given to the patient, before administration of medicine, BP (130/90 mm of Hg) and pulse (74/min) was monitored.

For Virechan- Trvrit Lehya (40gm) was given at 10.30am (Shleshma Kal Gate Gyatva).

### Anupana

Draksha Fanta 50 ml was given and Patient was advised to take Luke warm water for whole day. All the instructions were given to the patient e.g., drinking hot water in between Vegas, avoidance of direct air, sleep during day to avoid any complications. A chart was maintained to note down Time of starting of Vegas, contents etc. in the below form:

<table>
<thead>
<tr>
<th>Time of drug administration</th>
<th>Quantity</th>
<th>Time of Vega</th>
<th>Contents of each Vega</th>
<th>Vitals (B.P., PULSE)</th>
<th>Signs, Symptoms</th>
<th>Complications if any</th>
</tr>
</thead>
</table>

**Observation during Virechana**

1st Vega started at 11:15Am. Last Vega i.e., 16th observed at 7.10pm. It was observed that at constant interval patient had Virechan Vegas up to 5pm. After that frequency decreased. Depending upon observations done during the whole day, below findings were noted:

<table>
<thead>
<tr>
<th>Vegiki</th>
<th>Madhyama shuddhi (16 vegas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lengiki</td>
<td>Samyak Virechan Lakshana</td>
</tr>
<tr>
<td>Manik</td>
<td>Madhyama</td>
</tr>
<tr>
<td>Aantiki</td>
<td>Kapha</td>
</tr>
</tbody>
</table>

Samsarjana krama was advised after the completion of Virechan procedure. Samsarjana krama was advised for 5 days.

In 1st Annakala Peya was advised. Gradually Ahara was changed (Laghu to Guru), finally normal diet was given in the evening of 5th day. After the completion of Samsarjana krama, Shaman medicine was started to pacify the remaining vitiated Vataadi Dosha.

### Discussion

In an ischemic stroke, there will be reduction in bloody supply to any part of brain tissue, which leads to dysfunction of the that part of brain tissue. About 30-40% of Ischemic Strokes are termed as Cryptogenic (i.e., one can’t be able cause of its origin). Several classification systems for acute ischemic stroke the OCSP i.e., Oxford Community Stroke Project classification (also called as the Bamford or Oxford classification) relies generally on the initial symptoms of stroke, based on the extent of these stroke symptoms, stroke episode is classified as, total anterior circulation infarct (TACI), partial anterior circulation infarct (PACI), lacunar anterior circulation infarct (LACI) or posterior circulation infarct (POCI). These four types of infracts predict the extent of the stroke, the area of the brain affected, the underlying cause and the its prognosis (6).

Due to severe disability and dependency Pakshaghata can be considered as one of the major diseases. Our Acharyas have given the line of treatment for Pakshaghata. In Sushruta Samhita, Acharya has given the treatment protocol in the sequence of Snehana followed by Swedan Mrudu Samshodhana and Basti Chikitsa (7).

In Charaka Samhita, Acharya has given the protocol like Sveda, Sneha, and Virechana (8).

However, in the present study treatment protocol was decided on the basis of the condition of the roga and rogi.

### Abhyanga

Sira Snayu Sankochana is mainly occurs in Pakshaghata hence Snehana is very essential for such condition. By the use of Snehana even the dry wood can bend (9). Abhyanga helps innourishing and strengthening the muscles of upper limb and lower limb. Therapeutically Abhyanga also acts on vitiated Vata Dosha, also it nourishes the Dhatu of the body (10).
**Swedana**

Swedana gives relief from stiffness, heaviness and coldness (11) of body parts and all these symptoms were present in this patient. Generally, Swedana Karma after Shena Karma is indicated in all kinds of Niramaja Vata roga (12). By the application of Shena therapy, the dry stick becomes soft and becomes easy to bend (13), in the same way these Shena and Swedana Karma gives maximum benefits in conditions like severe spasticity, pain and stiffness, which are commonly present in Pakshaghata cases.

**Patra Pinda Sweda**

Leaves of Nirgundi, Ernda, and Arka plants have analgesic and anti-inflammatory properties which are the important ingredient of the procedure. Patra pottali Sweda helps in relieving pain, stiffness and swelling, pacifies the morbidity of Vata, Pitta and Kapha in the affected joints, muscles and soft tissues. In pain related arthropathies before Shodhana like Virechan. Patra Pinda Sweda is effective. When the leaves are fried in the oil the Kleda of leaves goes away (15).

**Udvartana**

Udvartana with Yava + Triphala Churna was selected, as the Udvartana is indicated in Vataja and Kaphaja disorders, it does ‘Kaphavilayana’ and ‘Srotoshodhana’ also helps to dissolve the vitiated Meda Dhatu and promotes Agni. The Udvartana is generally administered in Gauravata (heaviness of body), Shula (pain all over body) and Aamaja conditions. The Yava Churna is having properties like Kashaya rasa, Ruksha Guna and Lekhana Karma (16). The Triphala Churna is having properties like Kashaya rasa, Ruksha guna and Tridosha Shamaka,Twachya, Medohara and Deepaniya (17). Hence these both drugs are selected for Udvartana during initial course (1st phase) of treatment.

**Shirodhara with Jatamansi tail**

Shirodhara is an ayurvedic method of healing, which helps in relaxing mind, body and soul to a harmonious level. According to Ayurveda, Shirodhara is the ultimate remedy of pacifying the vitiated Vata doshas. The herbal oils used in this treatment balances the nature of the Vata dosha and hence provides relief from the various underlying symptoms of the Vata imbalance (18).

**Jatamansi oil**

Jatamansi, also known as “Tapasyani” in Ayurveda. It also acts as a brain tonic and helps to improve memory and brain functions by preventing cell damage due to its antioxidant property. It also calms down the brain and manages anxiety as well as insomnia. Jatamansi also helps manage the symptoms of anxiety. According to Ayurveda, Vata governs all the movement and actions of the body and nervous system respectively. Shirashool is mainly due to Vata imbalance. Jatamansi helps reduce shirasool. This is due to its property of Tridosha balancing and a unique Medhya (improve intelligence) effect (19).

**Shodhanartha Snehapana**

Shodhanartha Snehapana has three fundamental purposes before Shodhana (purification) processes as follows –

- To prepare the body by bringing the Doshas from Shakha to the Koshta from where they can be easily expelled out (20).
- To pacify the anticipated provocation of Vata after the purification processes (21).
- For providing strength to the body for bearing the stress of the purification processes (22).

**Virechana karma**

Virechana(purgation) described in ayurveda as important aspect of detoxification. Virechana is choice of Sodhana Chikitsa for pitta dushita vyadhi; This study proves efficacy of Virechana in the management of Pakshaghata. The therapy alleviates Vata and purifies the body by removing toxins (23, 24).

There is the involvement of Suddha vata prakopa, Anyadosha Samsirstra vata prakopa and dhatuksayajanya vata prakopa in Pakshaghata. As per modern medical science any stroke or shock associated with ischemia and hemorrhage resulting destruction of brain tissue and disturbed blood supply (25-28). Thus, with the help of Virechana Karma vitiated doshas can be expelled out from the body which helps in maintain the equilibrium if the body and reduce the symptoms of the disease.

**Nirgundi tail**

Nirgundi leaves are used in Ayurveda for inflammatory swelling of joints, in rheumatism. It has vishaghna (antitoxic), and analgesic action. It is one of the important herbs used in treatment Vata diseases.

A water extract of the leaves, when administered to rats, exhibited anti-inflammatory, analgesic, antihistaminic and membrane stabilizing and antioxidant activities (29). Thus, nirgundi oil having vatathara properties helps to pacify vata and other vata related symptoms.

**Pathyadi kashya**

Pathyadi kashaya is an herbal decoction which consist of hareetakai (Terminalia chebula Retz.) and other medicinal herb like vibhbitaki (Terminalia bellerica Roxb.), amalaki (Emblica officinalis Gaertn.), bhunimba (Andrographis paniculata), nimba (Azadirachta indica), nisha (Curcuma longa) along with guda (sugar cane jaggery) etc. Pathyadi kashaya is having ushna veerya (hot potency), tridoshahara mainly kaphapitta shamaka and having properties of sheershashulahara (headache alleviating), mala anulomaka (stool formation and facilitated evacuation) and chakshushya (comfort the eye). In the guna paata (verse responsible for clinical applications) of the...
Kashaya mentioned that the kashaya has a specific efficacy in shiro roga (head diseases) (30).

**Guggulu Tikta Ghrita**

Guggulu tikta guhritam contains Tikta rasa pradhana dravyas. Tikta rasa is Pachana (tikta dravya are laghu and ushna tikshan in properties which are very useful for Ama pachna) hence it alleviates Ama (toxic substances) the increased digestive fire helps in maintaining the normal stage of Dhatwagn, so that the body tissues will be in equilibrium state. Tikta rasa helps in formation of Samyak Asthi dathu. (31).

**Trivrit avleha**

Trivrit which is most commonly known as Operculina turpethum Linn. The bark of the fresh root is rubbed up with milk and administered as purgative (32). Aruna or Shweta (i.e., having whitish or reddish coloured root) & Shyama (i.e., having blackish root) are the two varieties of Trivrit. Botanical name of Aruna or Shweta Trivrit is Operculina turpethum (L.) Silva Manso (syn. Ipomoea turpethum), while that of Shyama is Ipomoea petaloideis chois (33).

Cardiotoxic substance named oleandrin is an active principle of the leaves. The roots, bark and seeds contain cardio-active glycosides, formerly designated as neriodorin, neriodorein and karabin (34).

**Aampachaka Vati**

Aam Pachak Vati helps in reducing aggregated Tridoshas (Vata, Pitta & Kapha) and helps digestion by increasing peristaltic movement. This special formulation helps in quickly controlling acidity, flatulence and indigestion is a good remedy for digestive disorders.

**Tapyadi loha**

Tapyadi Loha is also used in Pandu and Visha. Rasauhadi have Rakta Prasadana and Rasayana qualities. Tripahala having Deepana Pachana qualities whereas Chitrak, Shunthi, Marich, Pippali and Vidanga are Ushna Virya. Besides Svarna Makshika and Rajat Bhasma show Vishahara properties. Hence, this was the apt choice as the Drug or Vyadhi Viparit Dravya (35).

**Cap Palsineuron**

It is a proprietary medicine prepared by combination of Ekapravira Ras, Mahatvadivhammama Ras, Sameer Pannag Ras and Sutasekhara Ras, and all these Yogas are directly indicated in Vataja Roja (36). Due to this specific type of combination, it was administered to patient to tackle symptoms like weakness and stiffness in the muscle.

**Sutshekhar rasa**

Sutshekhar rasahelps in improving the vitiated state of pitta and improves the whole digestion and results in proper functioning of Agni. Its substances are having ruksa, laghu, katu and ushna properties that decrease the vitiated drava roopa of pitta (37).

**Phalatrikadi Kashaya**

Phalatrikadi kashya consists of Amalaki, Hareetaki, Vibhataka, Anrita, Vasa, Katuki, Kiratikta, Nimba. Phaltriakdi is a most common and famous preparation having properties such as Pittarechak, Yakriduttejak, Deepan, Rechan, Pachak, Shothhara, Jwarahara, Kamala and Panduhara, Yakrit and Raktvikaarhara, Tridoshara, Rashayan, Mutrajana, Pittasarak, Anulomak, Shwedak, Dahaprasruman and Raktapitthahara (38).

**Physiotherapy**

Physiotherapy is one of the best supportive therapy for the diseases like Hemiplegia. It is very useful for rehabilitation. The main aim of physiotherapy is to treat, correct, prevent and to prepare the patient to adjust with their disabilities and deformities happened (39). In all kinds of Pakshaghata, the physiotherapy is given for the better movements of limbs, fingers and toes.

**Conclusion**

Simple Panchakarma treatments are beneficial in conditions like hemiplegia in acute stages. Pakshaghata is a very difficult disease to manage, because complications may arise at any time. But by adopting a proper logical treatment protocol, one can get good results in Pakshaghata. Panchakarma helps muscle restoration and boost motor system and; thus, overall relief in impairment occurs in patient of Pakshaghata. The present case study is a practical evidence for the importance of in balvan patient of hemiplegia. The success of this case helped to gain trust of the patients towards Ayurveda and Panchakarma treatments.

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