CASE REPORT

Ayurvedic Management of Pakshaghata (Cerebrovascular Accident):
A Case Study

1Megha G 2 Chauhan Vikas 3R Joshi Diwakar Papurao

1Internee, 2Postgraduate scholar, 3Associate Professor, Department of Kayachikitsa, Sri Dharmanthala Manjunatheshwara College of Ayurveda & Hospita, BM Road, Thannirupalla, Hassan-573201

1 2Corresponding authors: Megha G, Email address: drmeghagopi@gmail.com
Dr. Vikas Chauhan, Email address: chauhanvikas2808@gmail.com

Abstract
Stroke is one of the leading causes of death and disability in India. Stroke is heterogeneous group of disorders. This disease has posed a great problem to the medical field as far as its treatment is concerned. There is a wealth of information available on the cause, prevention, risk, and treatment of stroke. Even then much, less is known about the treatment of the stroke, there is no any satisfactory and widely acceptable measure for the stroke. Many studies were being conducted in the field of Ayurveda as well as in contemporary fields for achieving the better line of management for Cerebro Vascular accident (CVA).

A case study of CVA was admitted, with the complaints of loss of strength in the right side of the body, associated with drowsiness, difficulty in walking, slurred speech, heaviness of affected side of the body with pain, stiffness, and bladder incontinence. Slurred speech and on examination found Glasgow coma scale was 14/15 (E -3, M-5, V-6) and CT scan suggested- Acute hemorrhage in left thalamus and corona radiata and along with laboratory investigations, case was diagnosed as Pakshaghata with Pittakaphaaavruta. Various treatment procedures like Shirodhara, Shirosthalam, Kayaseka, Nasya, Basti etc. with oral medicines were adopted at various stages of the disease. There was a remarkable improvement in the subjective and objective clinical features. Result are encouraging for the further advance research in CVA.

Keywords: Stroke, Ayurveda, Pakshaghata, Cerebro Vascular Accident

Introduction:
The disease Pakshaghata is explained and well explored by all the Bruhatrayee’s. The disease is due to vitiation of Vata Dosha and Sthana Samshraya in the Khavaigunya, leading to the formation of the Laxana. The Chikitsa is mainly to control the Vata Dosha and it’s based on the Dosha Doshya Vriddi and sthana dusti.

The burden of lifestyle disorders are increasing day-by-day, and stroke is the one among them. It is the 3rd most cause of death and disability world-wide. In developing country like India ratio is increasing due to increase in the ratio of lifestyle disorders. The world wide incidence has been quoted as 2/1000 population/annum; about 4/1000 in people aged 45-84 years.

A WHO study, in 1990 quoted incidence of mortality due to stroke in India to be 73/100,000 per Year. In India the incidence of cerebrovascular disease was found to be 13/100,000 population/year. In stroke cases 85% of patients suffer from cerebral infarction and 15% from cerebral hemorrhage and 1.5 times more often in male than female.

Here is a case study of CVA, which has shown a remarkable improvement with Ayurvedic treatment and the aim of the treatment was to manage the disease without further worsening and to provide better quality of life to the patient with medication.

Case Report
A patient of 60 years aged, Hindu married male, from Ckikkamangalur, Karnataka, having following complaints was brought to Kaya Chikitsa (General) Outpatient department of Sri Dharmanthala Manjunatheshwara College of Ayurveda & Hospital, Hassan on 6/2 and got admitted on the same day at 4.15pm.

Presenting Complaints:
Patient came with reduced strength in the right upper and lower limbs, associated with drowsiness, difficulty in walking, slurred speech, heaviness of affected side of the body with pain, stiffness and bladder incontinence since 1 week

History of Present Illness:
As per the statement of the by-stander, he was healthy before a week and he suddenly fell down during the bath on 29/1/2016, and complaints of reduced strength in the right upper and lower limbs and difficulty in walking associated with drowsiness, slurred speech, and heaviness of affected side with pain, stiffness, and bladder incontinence since 1 week. For the same complaints they consulted multispecialty hospital, took treatment for 5 days (tablet phenytoin sodium 100mg 1 thrice in a day, tablet telmisartan 40mg 1once in a day, tablet prazosin 2.5mg 1hs and tablet. clonidine 100mcg 1 thrice in a day) Also, he is a known case of hypertension since 3 years and he is under medication for it (tablet. amlodipine 5mg 1bd). So
for the further treatment they came to our hospital and got admitted on 6/2/16.

**Physical examination:**
Built, nutritional status, hair, nail of the patient are normal, pallor, clubbing, cyanosis, ictrus, lymphadenopathy were absent. Blood pressure was 140/90 mmHg and pulse rate was 80 beats/minute.

**Systemic Examination:**
- **Respiratory system:** On auscultation, normal bronchial-vesicular sounds heard and no abnormality detected.
- **Cardiovascular system:** S1 S2 heard and no abnormality detected.
- **Per abdomen:** was soft, non tender, no organomegally detected.
- **Central nervous system:** Higher mental functions found to be normal. Glasgow coma scale – Eye opening response was 3, verbal response - 5 and motor response, total score - 14/15

Motor functions:
- **Power**
  - Right Upper and Lower limb - 2/5
  - 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 3/5 and on normal side (left) found to be 2/5. Babinski’s sign was positive on right side.

**Laboratory Investigations:**
- Hematological investigations were done and found to be normal (within the limits).
  - Hb was 13.2 gm%.
  - Total WBC count was 10,500 cells/cmm.
  - ESR was 20 mm/hr.
  - Neutrophils was 60%.
  - Monocytes was 02%.
  - Eosinophils was 07%.
  - Platelet count was 2.50 lakhs/cmm.
  - RBC count was 5.18 millions/cmm.
  - FBS was 108.8 mg/dl.
  - Blood urea was 0.6 mg/dl.
  - Urine micrological report shows: pus cells 7-8 hpf, epithelial cells 2-3 hpf and few bacilli.

**Specific investigation:**
- Computerized tomography scan of head done on 05/2/16 showed acute hemorrhage in left thalamus and corona radiate, measuring 3.2*2.6 cm.

**Diagnosis and treatment**
Case was diagnosed as a Pittakhapavrutta Pakshaghata (Cerebrovascular Accident). As per the classics, the treatment was planned according to the Dosha and Sthana dusti as following.

**Table 1: Showing details of treatment given to patient**

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment given</th>
<th>Observation</th>
</tr>
</thead>
</table>
| 6/2/16     | 1. Shirodhara  
             2. Nasya with pinch of Vacha, Pipalli, Maricha, Saindhava,                 |                                  |
|            | Hingu, Shunti with warm water.                                                   |                                  |
| 7/2/16 &   | Shirodhara .  
             2. Nasya with pinch of Vacha, Pipalli, Maricha, Saindhava,                 | No changes                       |
| 8/2/16     | Hingu, Shunti with warm water.                                                   | Appetite-decreased               |
|            | Shunti jala 20ml tid,                                                           | Bowel-not passed                 |
|            | Tablet Haritaki 2hs                                                             | Tongue-coated                    |
|            | Laja tarpana 50ml tid,                                                          |                                  |
| 9/2/16 &   | Continue 1 to 6  
             7. Ananda bhairava rasa 1tid  
             8. Shirostalam with Manjista churna and Shatadhouta ghrita  
             9. Physiotherapy                  | Bowel-not passed                 |
| 10/2/16    | Felt lightness of the body on 12/2/16                                           | 10/2/16                         |
|            | c/o fever since 13/2/16 night, due to UTI.                                      |                                  |
| 11/2/16    | Sarvanga Kayaseka with Dashamoola kashaya and Gomootra.                          | Felt lightness of the body on    |
| (revised   | Shirostalam with Manjista churna and Shatadhouta ghrita Matra basthi with       | 12/2/16                         |
| treatment) | Nimbamruta eranda taila-60ml/Shirodhara with Dashamoola kashaya AB rasa 1tid | c/o fever since 13/2/16 night,   |
| to         | CP vati 2tid  
             Tablet Haritaki 2hs  
             Laja tarpana 50ml tid,  
             Physiotherapy                  | due to UTI.                      |
| 13/2/16    | Stopped all the treatment (consulted allopathic physician)                      |                                  |
| 14/2/16    | 1. Injection Gramocef 1.5gm iv bd(att)                                         | c/o, Fever and weakness, it      |
| (revised   | 2. Injection rantadin iv bd                                                    | gradually reduced                |
| treatment) | 3. Tablet dolo 650mg 1tid (a/f)                                                 |                                  |
| to         |                                                                                  |                                  |
| 16/2/16    |                                                                                  |                                  |
Results:
The condition of the patient was improved gradually along with the course of the treatment. The strength and power of both right upper and lower limb was increased to +4/5, also tone of the muscle improved, deep tendon reflex was exaggerated (grade-3) and was normal (grade-2) after the course of treatment, gait before treatment was hemiplegic and at the time of discharge it was waddling gait and was able to walk alone with the help of cane. Got control over the bladder. Over all condition was improved.

Glasgow coma scale – Eye opening response was 4, Verbal response-5 and Motor response-6 therefore Total score 15/15.

Motor functions:

<table>
<thead>
<tr>
<th>Power</th>
<th>Table 2: comparison of power grade before and after treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right (B T)</td>
<td>(A T)</td>
</tr>
<tr>
<td>Upper limbs</td>
<td>2/5</td>
</tr>
<tr>
<td>Lower limbs</td>
<td>2/5</td>
</tr>
</tbody>
</table>

Reflexes

<table>
<thead>
<tr>
<th>Table 3: comparison of reflexes grade before and after treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affected Side (right)</td>
</tr>
<tr>
<td>BT</td>
</tr>
<tr>
<td>Biceps</td>
</tr>
<tr>
<td>Triceps</td>
</tr>
<tr>
<td>Supinator</td>
</tr>
<tr>
<td>Knee jerk</td>
</tr>
<tr>
<td>Ankle jerk</td>
</tr>
<tr>
<td>Babinski’s sign</td>
</tr>
</tbody>
</table>
Discussion:
The case taken for study was diagnosed as Pittakhapavrutta Pakshaghata(CVA). Considering the involvement of doshas i.e. pradhanyata of Pitta, Kapha, and vata assessed on basis of laxanas. The treatment was planned according to the Dosha and Sthana dusti. The Prakupita Pitta dosha got ashraya in the Rasa-Raktavaha srothas because of Sanga and Atipravritti type of Srothodusti. The pathological consequences are seen all over the body, involving Mamsa, Majja dhatu and the Uttamanga Shiras Marma. Hence below mentioned treatment plan was done in keeping interst of Dosh and Sthana dusti.

As the samprapthi is involved from the Sanjnavaha Srothas, the Sanjnaprabhodhana Nasya, Shirodhara, Shirosthalam was planned to treat the Shiro-Marmabhighta.

The complaints of drowsiness, disturbed sleep got reduced by 3 days. As samprapthi of Pakshaghata involving Pitta and Vata Sthana – Amashaya and Pakwashaya, the Virechana (Mrudu sneha virechana) with Nimbhamritra Eranda Taila is practiced to correct the root pathogenesis, as Nimbhamritra Eranda Taila does Vata-Pittahara and causes Mrudu Virechana. Patient got Anulomana of Vata and Shamana of Prakupita Pitta, resulting in correction of Agni, Rasavaha, Raktavaha, Annavaha srotdusti.

The restoration of vikrita seen in Mamsa and Majja dhatu was corrected with following treatment modalities. I.e. Kayaseka with Dhashamooola Kashaya and Gomutra for 7days, it acts as Vatahara and helps in Vatanulomana and Mrudu Virechana, as it is indicated in Vata Vyadi.

At the end of management, patient got improved in coordination, consciousness, and regaining the motor functioning of the body. The patient was able to walk independently without support. During management, urinary tract infection was relapsing; hence judicious management was sought from contemporary science for the same.

As patient got Anulomana of Vata after virechana, functions of ApanaVata and Sanjnavaha Srothas are restored, leading to the help of urinary incontinency. Shirodara with Jala was done and Shirothalam with Manjista choorna and Shatadhouta ghrita as to treatment Pitta and Sanjnavaha Srothas.

Nasya- Sanjnaprabhodhanartha, Nasya has been done with the Sanjnaprabhodana dravyas like of Vacha, Pipalli, Maricha, Saindhava, Hinga and Shunti with warm water which stimulates the Sanjna and dose the Srothoshodhana.

Matra basti was planned with the Nimbhamrita Eranda Taila to restore the prasarana of Vata, as it acts as Tridoshahara especially Vata Khapha Shamana, Rakt prasadhana, Medohara, Asti Balya, Srothoshodhana, Lekhana, Kledahara. Here Matra Basti was adopted because it is Shukha prada, Balya, Srishita malanulomana, as the bala of rogi was avara.

Kayaseka with Dashamoola Kashaya and Gomutra was done to relieve the Shoola(pain) and Stambha (stiffness) caused by Kapha-Vata Dosha. It is also considered as Deepan -Pachana of Aama and acts as Balya. Shunti jala and Ananda bhairava rasa was given as they do Amapachana at the Jataragni and Dhata level.

Orally, Nimbhamruta Eranda taila was administered as Mrudu Virechana for removal of Avarana of Pitta, Kapha, and to attain the Prakruta karma of Vata, Srothoshodhana, Kleda hara. (As it is recommended for Pitta Kapha mishritta Vata rogas). Sukumara kashya helps in Vatanulomana and maintaining the equilibrium of all three doshas and it is also Apanaanulomana, Mutra marga visheshtawam, malaanulomana, Srothoshodhana, Balya, Pushhtikara, Vrishya, Rasayana. Chandraprabha vati is tridoshahara and it also acts as Balya, Vrushya, Rasayana and it is said to be Sarvaroga prashhamana.

Then at the Kevala Vata avasta, Sarvanga Abhyanga with Mahanarayana Taila and Nadi Sweda was adopted as Apanaanulomana, Mutra marga visheshtawam, malaanulomana, Srothoshodhana, Balya, Pushhtikara, Vrishya, Rasayana. Chandraprabha vati is tridoshahara and it also acts as Sarvaroga prashhamana. At first stage of treatment functions of Sanjnavaha Srothas was restored and Amapachana was done at the level of Jataragni with adaptation of Moordini Chikitsa and Amapachana was done for 10days, at the second stage Amapachana was attend with the help of oral medication and Kayaseka, and was done for 10days. Virechana was adopted to restore the function of Agni, Srotas and Vata Dosha and at the third stage, pathological consequences seen in Mamsa-Majja are restored by adopting Abhyanga and Basti Chikitsa.
Reference:


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