



## CASE REPORT

### AYURVEDIC MANAGEMENT OF ACUTE CEREBRAL HAEMORRHAGE WITH MIDLINE SHIFT: A CASE REPORT

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#### ABSTRACT

**Objectives:** To manage the acute cerebral hemorrhagic stroke with midline shift through panchakarma and Ayurvedic oral medications.

**Methods:** The present case deals with a diagnosed case of hemorrhagic stroke presented as right sided hemiplegia with midline shift of 7mm towards right side. The Ayurvedic diagnosis of Pakshaghata was made and Nasya and Kaala basti procedures were done. Assessment were taken before and after treatment on National Institute of Health Stroke Scale (NIH-SS), and Barthel Index.

**Results:** On NIH-SS, maximum relief was noticed in level of consciousness, motor movement of all four limbs, sensory function, level of recognition, change is noticed in facial palsy and language. On Barthel index, significant improvement in daily routine of patient was seen.

**Conclusion:** Ayurvedic panchakarma therapy along with internal medication provided an evidence for the absence of midline shift in present case.

## INTRODUCTION

Stroke was the second most frequent cause of death worldwide. 95% of strokes occurs in the people of age 45 and older, and 2/3<sup>rd</sup> of strokes occur in those over the age of 65. However, Stroke can occur at any age including in childhood (Senelick Richard, 1994). 60% of survivors have disabilities in arm or leg use and upto 1/3<sup>rd</sup> of stroke survivors need placement in a assisted living environment (Thomas Carmichael, 2006). The prevalence of Stroke in India ranges from 84- 262 per 100000 population in rural and 334-424 per 100000 in urban areas (Pandian, 2005). A stroke is when poor blood flow to the brain results in cell death. There are two main types of stroke: ischemic (due to lack of blood flow) and hemorrhagic (due to bleeding). Intracranial hemorrhage is a serious medical emergency because the buildup of blood within the skull can lead to increase in intracranial pressure, leading to Cerebral edema.

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The pooled blood collects into a mass called a hematoma, these condition increases pressure on near by brain tissue which leads to midline shift. Midline shift is a shift of the brain past its centre line which occurs due to uncontrolled increase of ICP. As a result, the affected area of the brain cannot function normally, which might result in an inability to move one or more limbs on one side of the body, failure to understand or formulate speech. Stroke can be clearly correlated with the condition of *pakshaghata* in Ayurveda.

#### Case Description

This Right handed Male patient aged 45 years came, in a drowsy state with right sided weakness accompanied with slight verbal response with urine and stool incontinence (27/8/16). He was admitted to the allopathy hospital 7 days before, complained about sudden loss of consciousness and thereby admitted (22/8/16) to the ICU unit in the respective hospital for 7 days (discharged at 27/8/16). According to the physician, there is no much improvement seen in the patient so the doctor advised his relatives to get him discharged.

Table 1. Intervention

	SHODHANA	SHAMANA
27/8/16 to 3/9/2016	<ol style="list-style-type: none"> <li>Himadhara with dhanyaka and amalaki churna</li> <li>Nasya with pippali, vacha, yashtimadhu, hingu, saindhava, maricha ksheerapaaka<sup>4</sup></li> <li>Shiro lepa with Shatdhouta ghrita mixed with manjistha churna Three times a day</li> </ol>	<ol style="list-style-type: none"> <li>Mukta vati 1 BD</li> <li>Ekanga veera rasa<sup>5</sup> 1 BD</li> <li>Dhanadhnayanadi kashaya<sup>6</sup> 3tsf TID</li> <li>GoroChanadi vati 1 BD</li> </ol>
4/9/2016	Kostha shodhana with Gandharva hastadi taila 50 ml + Milk 40 gm + Guda 20 gm given empty stomach	
5/9/2016 to 11/9/ 2016	<p>► Kaala basti</p> <ol style="list-style-type: none"> <li>1. Manjisthadi Ksheera Basti <ol style="list-style-type: none"> <li>Makshikama : 40 ml</li> <li>Lavana : 2 gms</li> <li>Bruhat Saindhavadi Taila : 50 ml</li> <li>Manjisthadi churna + Shatpushpa churna : 30 gms</li> <li>Manjisthadi Ksheera Paka : 300 ml</li> </ol> </li> <li>2. Anuvasana basti with Bruhat Saindhavadi Taila 60ml</li> </ol>	<ol style="list-style-type: none"> <li>Mukta vati 1 BD</li> <li>Ekanga veera rasa 1 BD</li> <li>Dhanadhadya kashaya 3tsf TID</li> <li>GoroChanadi vati 1 BD</li> </ol>

Table 2. Follow up 2<sup>nd</sup> admission

Date	SHODHANA	SHAMANA
21/9/2016 to 28/9/2017	<ol style="list-style-type: none"> <li>Sarvanga abhyanga with ksheera bala taila f/b nadi sweda for 7 days</li> <li>Mukha panasa patra sweda for 4 days</li> <li>Jivha nirlekhana with vacha churna f/b ksheera dhooma for 7 days</li> <li>Shiro pichu with himasagar taila for 7 days</li> <li>Kaala basti <ol style="list-style-type: none"> <li>Manjisthadi ksheera basti <ol style="list-style-type: none"> <li>Makshika : 40 ml</li> <li>Lavana : 2 gms</li> <li>Sahacharadi taila + Kalyanaka ghrita : 100 ml</li> <li>Manjisthadi churna + Shatpushpa churna : 30 gms</li> <li>Manjisthadi ksheera paka : 300 ml</li> </ol> </li> <li>Anuvasan basti with sahacharadi taila 60 ml</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>Ekanga veera rasa 1 BD</li> <li>Dhanadhadya kashaya 3tsf TID</li> <li>GoroChanadi vati 1 BD</li> </ol> <p><b>Discharge medicine</b></p> <ol style="list-style-type: none"> <li>Maharajprasirinitaila 1 BD</li> <li>Saraswatarishta 3tsf TID</li> <li>Anu taila 2 drops each in nostril twice in empty stomach</li> <li>Bruhat vata chintamani 2 TID</li> <li>Palsineuron 1 TID</li> </ol>

Table 3. Follow up 3<sup>rd</sup> admission

	SHODHANA	SHAMAN
26/11/2016 to 12/12/2016	<ol style="list-style-type: none"> <li>Sarvanga abhyanga with maharayan taila f/b baspa sweda with bala moola ksheerpaka</li> <li>Kaala Basti <ol style="list-style-type: none"> <li>Mustyadi yapana basti <ol style="list-style-type: none"> <li>Makshika : 60 ml</li> <li>Lavana : 5 gms</li> <li>Kalyanaka ghrita : 30 ml</li> <li>Shatpushpa + vacha + yashti churna : 30 gms</li> <li>Musta + guduchi kashaya : 250 ml</li> </ol> </li> <li>Anuvasan basti with Ashwagandha ghrita 60 ml</li> </ol> </li> </ol>	<p>Discharge medicine</p> <ol style="list-style-type: none"> <li>Kalyanak ghrita 1 tsf OD</li> <li>Bruhat vata chintamani 1 BD</li> <li>Anu taila 2 drops BD in empty stomach</li> <li>Dhanadhanaya kashaya 3tsf TID</li> </ol>

## RESULTS

Table 4. Before and after treatment outcomes

	Before Treatment	After treatment
CT brain	21 AUG 2016 : There is a large Acute Parenchymal Haematoma involving the left basal ganglia measuring 6.3* 3.0 cm with surrounding oedema. There is mass effect over the left lateral ventricle and adjacent brain parenchyma. There is a Midline Shift Of 7mm towards the right	28 DEC 2016 : Late subacute infarct in left temporo – parietal region, basal ganglia and corona radiata. Chronic lacunar infarct in right basal ganglia. No evidence of haemorrhage. No evidence of mass effect or midline shift.
Barthel index	the scale denotes that patient is fully dependant	The scale shows a minimal help needed for doing daily activities.
NIH – SS	Grade - five which denotes severe disability	Grade two which denotes the slight disability ie. he is unable to carry out some previous activities but able to look after own affairs without much assistance

So, for further magement he admitted to Kle Ayurveda Hospital, Belgavi. At the time of examination patient was semi conscious, non oriented and was responding to high vocal commands, muscle power was found to be 0 in right upper and lower limb with positive Babinski's sign. & blood pressure found to be 180 / 120 mm Hg. Patient was non smoker, occasional alcoholic and not having any allergy to any drug or food item.

## Diagnosis, assessment and treatment

Stroke was diagnosed by the history and clinical examination. MRI BRAIN (21 / 8 / 2016) revealed evidence of a large Acute Parenchymal Haematoma involving the left basal ganglia measuring 6.3\* 3.0 cm with surrounding oedema. There is mass effect over the left lateral ventricle and adjacent brain parenchyma. There is a midline shift of 7mm towards the

right. Total two assessments were carried out and day wise improvement is recorded in the first visit of the patient. Two more follow ups are recorded with overall improvement in the last which is assessed on the basis of the scorings of National Institute Of Health Stroke Scale (NIH-SS) And Stroke Specific Quality Of Life Scale (SS-QOL). The patient was diagnosed as *pakshaghata ( dakshina parshwa )* according to Ayurveda . Initially *Himadhara and ksheerapaka nasya* were given for 7 days followed by 1 day *kostha shodhana* and later *kaala basti* was planned. Patient was discharged (12/08/2016) and internal medicines were prescribed for 15 days (shown in Table 1) . Patient got admitted consequently for 2 times (table 2 & Table 3).

## DISCUSSION

During the first admission, the semi-conscious stage of the patient has been treated under the principle of *mada* with *teekshna nasya*. The existing *pitta prakopa avastha* and the further resulting *pitta dushti* due to *ushna veerya dravya* administration was treated by *himadhara* and *shatadhouta ghrita*, also slowly reduces the raised blood pressure. *Sadyovirechana and ksheer basti* mainly aimed at *Vata anulomana* and treating *vata- pitta dushti*. *Manjistha* having the quality of *rakta shodhaka* and *ksheer of pitta shamaka* while *bruhat saindhavadi taila* having *ushna , tikshna* property which lead to *niraamawastha*. *Ekanagveer rasa* having the property of *tikshna guna , vata-kapha hara , balya* and should be given in hemiplegic recovery. phase. *Dhanadanayanadi kashaya* is used in *kaphanubandha vata awastha* due to its *ruksha, ushna and avarangnam* properties. During the 2<sup>nd</sup> admission , patient was not in *amaja* condition so the treatment was given according to *kapha avaruta vata awastha*. *Mukha swedana* was done with *panas patra* as it is *vata shamak* and gives strength to the fascial muscles. *Kalyanak ghrita* clears *majja dhatugata vikara* and also has the property of acting on higher mental levels. *Sahacharadi taila* relieves *vatanubandha kapha awastha*.

*Maharajprasarini taila cap* and *Bruhat vata chintamni* relieves muscle spasticity and also relieves *vata kapha awastha*. During 3<sup>rd</sup> admission, treatment aimed at *dhatukshaya janya awastha* so *Mustyadi yapan basti* was planned.

## Conclusion

It is important to consider *Vegavasthika chikitsa* as a life saving measure before administration of general line of treatment. *Teekshna nasya* shows best results in *sangya prabodhana* as it acts over the *marmas*. It is also responsible for removal of the *avarana* which is the major pathology involved here. *Basti* being the choice of treatment for *vataja* disorders, will play a major role in *chikitsa of pakshaghata* only after the *avarana* is removed. Line of treatment adopted after *vegavasthika chikitsa* and removal of *avarana* gives tremendous improvement as supported by the presented case.

## REFERENCE

- Dr. Nirmal Saxena, Edited, Vangsen Samhita Vol II ; Chapter 86; Shlok No 38; Edition Reprint 2004; Pub: Choukhamba Sanskrit Series, Varanasi; Page No 1181
- Dr. Prabhakar Rao, G. 2016. Sahasrayogam; Chapter 03; Shlok No 192; first Edition 2016; Choukhamba Sanskrit Sansthan, Varanasi; Page No 91.
- Pandian, J.D. Jaison, A., Deepak, S.S., Kalra, G., Shamsheer, Lincol, D.J. et al. 2005. Public Awareness of Warning Symptoms, Risk factors & treatment of stroke in North – west India. Stroke, 36: 644-648.
- Rasa yoga sagara, Sharma H.P., Vol-1, p-458, 2<sup>nd</sup> edition, Krishna Das Academy, Varanasi
- Senelick Richard C., Rossi, Peter W., Dougherty, Karla 1994. *Living with Stroke: A Guide for Families. Contemporary Books, Chicago. ISBN 0-8092-2607-3. OCLC 40856888.*
- Thomas Carmichael S. 2006. Cellular and molecular mechanism of neural repair and stroke: making waves. Annals of Neurology, 59:735.

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