

## International Journal of Research in Indian Medicine

### “Role of ‘santarpana chikitsa’ in the management of ‘pakshaghata’ with special reference to ‘acute non – hemorrhagic infarct – hemiplegia’ – a case study.”

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#### ABSTRACT –

In the era of modernization, diseases like systemic hypertension, dyslipidemia, diabetes mellitus, coronary artery diseases etc., occurs easily due to adaptation of sedentary lifestyle, excessive stress, fast food consumption etc., Which then leads to conditions like stroke or hemiplegia. Along with cancer and coronary artery diseases, stroke is the major cause of mortality and morbidity worldwide. Hemiplegia means total or partial paralysis of one-sided limbs with physical and mental instabilities. In *Ayurvedic* prospective hemiplegia is correlated with ‘Pakshaghata’ or ‘Pakshavadha’.<sup>[1]</sup> ‘Paksha’ means half part of body and ‘Aghat’ means loss of functions.

This is a case of 52 years old female patient diagnosed with ‘Acute non-hemorrhagic infarct’ (*Dakshina pakshavadha*). Initially she was treated with modern medicines but she didn’t get

satisfactory result. So, on the 25<sup>th</sup> day of stroke she was admitted to MAP Hospital Mumbai. She was successfully managed by *Ayurvedic* “Santarpana chikitsa’ for 2 months. Treatment shows considerable recovery in ability, mobility and strength which is highly encouraging.

**KEYWORDS** – *Pakshaghata*, Stroke, *Pakshavadha*, Hemiplegia, *Santarpana chikitsa*.

#### INTRODUCTION –

Hemiplegia is one of the most prevalent and disabling neurological disorder with prevalence of completed stroke and hemiplegia due to any cause is 56.9 per 1,00,000. The prevalence rate per 1,00,000 population is 68.5% in male and 44.8% in female.<sup>[2]</sup> Hemiplegia caused due to manifestation of stroke with neurological depict from vascular mechanism, 85% are ischemic and 15% are hemorrhagic. The reduction of blood flow to the brain for prolonged period resulted in ischemia and infarction.<sup>[3]</sup>

Most common symptoms of hemiplegia include weakness or numbness of face, arms, legs most often on one side of body. Other symptoms include confusion, difficulty in speaking, difficulty in walking, loss of balance or coordination, difficulty in seeing with one eye or both, severe headache without any cause etc.,

According to *Ayurveda* it is correlated with 'Pakshaghata' or 'Pakshavadha'. Which is made of two word 'Paksha' means 'half part of body' and 'Aghat' means 'loss of functions. It is amongst the 80 types of *Nanatmaj vata vyadhi*.<sup>[4]</sup> Here, vitiated *vata dosha* is main causative factor, which decreases *dravatva* and *snigdhatva* of *rakta* and *meda dhatu*.<sup>[5]</sup> It causes looseness and dryness in *sira- snayu- sandhi* and tendons of the half part of body.

*Ayurveda* plays major role in the management of this condition. Here treatment includes *Ghritapana, Shamana nasya, Matra Basti, Snehana, Swedana* with *Shamana aushadhi* comes under the title of 'Santarpana Chikitsa' or 'Brihana Chikitsa'. It is one of the *Shadavidha upakrama* narrated by *Acharya Charaka*. This treatment leads to *vatashamana, vatanulomana, agnivaradhana* as well as *rasayana* effect. Management of *pakshaghata* is reported in this paper.

### CASE REPORT –

A 52 years old female patient came to our hospital on stretcher with the complaints –

1. Weakness in right sided upper and lower limbs

2. Restricted movement of right sided upper and lower limbs
3. Unable to stand and walk - since 25 days
4. Unable to sit without support
5. Swelling over fingers of right upper limb
6. *Vismriti* (Diminished memory)
7. *Vibandha* (Constipation) -since 5 days

### HISTORY OF PRESENT ILLNESS –

As per patients' statement, she was quite well before 04/11/2019. On this day, she got some bad news causes emotional disturbances, leads to sudden rise in blood pressure and she had convulsion. Which leads to acute non- hemorrhagic infarct. After that she was admitted to some private hospital but she didn't get satisfactory result. So, she came to our hospital on 30/11/2019 for further management.

### PAST HISTORY –

- K/C/O – 1) HTN – since 25 days (From the same day of stroke)
  - ↓
  - R<sub>x</sub> Tab. Amlodipine 5mg 1-0-1
  - 2) Hypothyroidism – since 7 years
    - ↓
    - R<sub>x</sub> Tab. Thyronorm 25mcg 1-0-0
- H/O – Convulsion (on the same day of stroke)
  - Tablet. Eptoin 100mg 1-1-1 taken for 20 days.
- F/H – HTN & DM – Father
- S/H – Hysterectomy – 3 years ago

### • GENERAL EXAMINATION –

1. GC – Moderate, afebrile
2. PR – 66/min
3. BP – 130/80 mmHg

• **SYSTEMIC EXAMINATION –**

1. RS – AEBE, Clear
2. CVS – S<sub>1</sub>S<sub>2</sub> normal
3. CNS –

- Consciousness – Conscious
- Orientation – Fully oriented to time, place and person.

Sr. no.	Function	Right extremities		Left extremities	
		Upper limb	Lower limb	Upper limb	Lower limb
a.	Sensation	Normal	Normal	Normal	Normal
<b>MOTOR EXAMINATION</b>					
b.	Tone	Hypo	Hypo	Normal	Normal
c.	Power	1/5	1/5	5/5	5/5
d.	Muscle – movement coordination	Weak	Weak	Normal	Normal
e.	Involuntary movement	Absent	Absent	Absent	Absent
<b>SENSORY EXAMINATION</b>					
f.	Reflexes	Biceps - +3	Knee - +3	Biceps - +2	Knee - +3
		Triceps- +3	Ankle - +3	Triceps - +2	Ankle - +2
		Supinator – responding	Plantar flexion –	Supinator – responding	Plantar – flexion

**INVESTIGATION –**

**Multislice CT scan of head –**

- 1) **Acute Hypertensive haematoma is seen in the left thalamus with extension into the ventricular system.** Haematoma is seen bulging into the posterior aspect of III ventricle and reaches up to the right paramedian location where it indents upon the right thalamus. Also indent upon the superior surface of the mid brain.
- 2) **Haematoma measures approx. 3.5 (TR) \* 2.5 (AP) \* 2.7 (SI) cm.**
- 3) Mild diffuse effacement of the bilateral cerebral sulci.

- 4) Minimal bowing of the interventricular septum towards the right without significant midline shift.

**DIAGNOSIS:**

On the basis of clinical presentation and CT scan of brain it was diagnosed as ‘Acute non-hemorrhagic infarct’ (Hemiplegia right sided) and *Pakshaghata (Dakshina)*.

**SAMPRAPTI GHATAK –**

1. *Dosha – Prana, udana and vyana vayu, Sadhak pitta, Tarpak kapha.*
2. *Dushya – Dhatu – Rasa, Rakta, Mansa, Meda, Majja, Asthi*

- i. *Updhatu – Sira, Snayu, Kandara*
3. *Strotasa – Rasavaha, Raktavaha, Medovaha, Asthivaha, Majjavaha.*
4. *Agni – Jatharagni, dhatwagni of Rasa, rakta, mansa, meda, asthi, majja.*

5. *Type of strotodushti – Sanga*
6. *Udbhavasthana – Mastishka*
7. *Vyaktisthana – Ardhanganga (Right side)*

#### MANAGEMENT –

DAY	COMPLAINTS	EXAMINATION OF RIGHT EXTRMITIES				CHIKITSA
		TONE		POWER		
		U/L	L/L	U/L	L/L	
1 <sup>st</sup> day (30/11/2019)	Weakness in right sided upper limb and lower limb with restricted movements	1/5	1/5	Hypo	Hypo	<ul style="list-style-type: none"> <li>▪ Capsule. Palsynorm 1 at morning with <i>Brahmi ghrita</i> 2 tsp</li> <li>▪ <i>Matra basti</i> with <i>tila taila</i> and <i>saindhav</i> *7 days</li> <li>▪ <i>Pratimarsha nasya</i> with <i>Brahmi ghrita</i> at night 2<sup>o</sup> – 2<sup>o</sup></li> <li>▪ <i>Chitrak Haritaki Avaleha</i> 2 tsp at night with luke warm water.</li> <li>▪ Tab. Amlo 5mg 1-0-1</li> <li>▪ Bladder wash</li> <li>▪ Splint given for Right upper limb</li> </ul>
	Unable to stand and walk					
	Unable to sit without support					
	Swelling over fingers of right upper limb					
	Constipation					
	<ul style="list-style-type: none"> <li>▪ Urine –passed (catheter in situ)</li> <li>▪ Stool – not passed</li> <li>▪ BP – 130/80 mmHg</li> <li>▪ PR – 66/min</li> </ul> <p>(Solid stool with pungent smell passed after <i>Matra Basti</i>)</p>					
After 1 week (7/12/2019)	Weakness	1/5	2/5	Hypo	Hypo	<ul style="list-style-type: none"> <li>▪ Capsule Palsynorm 1 at morning with <i>Vachadi ghrita</i> 2 tsp</li> <li>▪ <i>Vachadi ghrita</i> 3 tsp at 8.00 am</li> <li>▪ <i>Swamala Rasayana</i> 2 tsp</li> </ul>
	Loose motion (5-6 episodes – since morning)					
	Weakness in right sided upper limb and lower limb with restricted movement					
	Able to sit with					

	support of back rest					<p>at morning with <i>Vachadi ghrita</i></p> <ul style="list-style-type: none"> <li>▪ <i>Pratimarsha nasya</i> with <i>Brahmi ghrita</i> at night 2<sup>0</sup>-2<sup>0</sup></li> <li>▪ <i>Mahamasha taila</i> for L/A</li> <li>▪ Splint for right upper limb</li> <li>▪ Bladder wash and removal of catheter</li> <li>▪ Stopped Tablet Amlo 5mg</li> <li>▪ Hold <i>Matra basti</i> and <i>chitrak haritaki avaleha</i></li> </ul>
	Able to stand with support					
	Swelling over fingers of right upper limb ↓					
	<i>Vismriti</i> (Diminished memory)					
	<ul style="list-style-type: none"> <li>▪ Urine – passed</li> <li>▪ Stool – passed</li> <li>▪ BP – 120/60 mmHg</li> <li>▪ PR – 60/min</li> </ul>					
After 2 weeks (14/12/2019)	Weakness in right upper limb and lower limb	1/5	3/5	Hypo	Hypo	<p>Continue above treatment</p> <ul style="list-style-type: none"> <li>▪ <i>Matra basti</i> with <i>tila taila</i> &amp; <i>saindhava</i> *15days</li> <li>▪ <i>Chitrak haritaki avaleha</i> 1 tsp with luke warm water at alternate night</li> <li>▪ <i>Patrapinda sweda</i> at right upper and lower limb *15 days</li> <li>▪ Wax therapy over right upper limb</li> </ul>
	Restricted movement of Right upper limb ++ and right lower limb					
	Able to sit without support					
	Stiffness at right upper and lower limb					
	Able to stand and walk with support (20-30 steps)					
	Swelling over fingers of right upper limb					
	<i>Vismriti</i> (diminished memory)					
	<ul style="list-style-type: none"> <li>▪ Urine – passed</li> <li>▪ Stool – passes</li> <li>▪ BP – 110/70 mmHg</li> <li>▪ PR – 66/min</li> </ul>					
After 4 weeks (28/12/2019)	Weakness in right upper limb and lower limb	2/5	3/5	Improved		<p>Continue above treatment</p> <ul style="list-style-type: none"> <li>▪ Hold <i>matra basti</i></li> <li>▪ <i>Ksheera basti</i> with <i>panchatikta</i> + <i>Bala</i> + <i>Shatavari</i> +</li> </ul>
	Restricted movement of Right upper limb and right lower limb					

	Able to walk with support (40-50 steps)				<i>Vachadi ghrita</i> * 15 days
	Swelling over fingers of right upper limb				
	Stiffness at right upper and lower limb				
	<i>Vismriti</i> (diminished memory)				
	<ul style="list-style-type: none"> <li>▪ Urine – passed</li> <li>▪ Stool – passed</li> <li>▪ BP – 120/60 mmHg</li> <li>▪ PR – 74/min</li> </ul>				
After 6 weeks (4/01/2020)	Weakness in right upper limb and lower limb ↓↓↓	3/5	4/5	Improved	Continue above treatment <ul style="list-style-type: none"> <li>▪ Foot splint given for right lower limb</li> </ul>
	Restricted movement of Right upper limb and right lower limb				
	Able with support (50-70 steps)				
	Swelling over fingers of right upper limb				
	Stiffness at right upper and lower limb				
	Improvement in memory +				
	<ul style="list-style-type: none"> <li>▪ Urine – passed</li> <li>▪ Stool – passed</li> <li>▪ BP – 110/60 mmHg</li> <li>▪ PR – 70/ min</li> </ul>				
After 8 weeks (20/01/2020)	Weakness in right upper limb and lower limb	4/5	4+/5	Improved	Continue above treatment (Hold wax therapy)
	Restricted movement of Right upper limb and right lower limb				
	walk without support				

	(30-40 steps)				
	Improvement in memory ++				
	<ul style="list-style-type: none"> <li>▪ Urine – passed</li> <li>▪ stool – passed</li> <li>▪ BP – 120/60 mmHg</li> <li>▪ PR – 72/min</li> </ul>				

## DISCUSSION –

*Pakshagahta* is *Vata pradhana* ailment which causes loss of functions of half part of the body. In this case study has been carried out to evaluate better line of treatment for *Pakshagahta*.

In this case patient is having symptoms like weakness in right upper limb and lower limb with restricted movement, unable to stand, sit etc., so vitiated *vata dosha* is the basic cause of these which should be treated first. Though all the drugs under study having *vatashamana*, *santarpana* effect.

## CAPSULE PALSYNORM –

It has *rasayana* and *vatashamana* properties which helps in relieving symptoms also acts as *balya* to the nervous system. As it contains *Sameerpannaga rasa*, which improves tissue oxidation and regulate blood supply in affected areas. Also, it contains *Mahavatavidhvansa rasa*, it improves metabolic process in central as well as peripheral nervous system and activates neuromuscular communication. Another ingredient such as *Parasik yavani*, *Deodaru*, *Erandamoola*, *Ashwagandha*, *Atibala*, *Vidari* etc., acts as a *balya*, *vatashamaka* and *rasayana*.

## SNEHANA –

As vitiated *vata dosha* is main cause of *pakshaghata*, *Snehana* plays important role in *vatashamana* and *santarpana*.

### a) **BAHYA SNEHANA –**

*Mahamasha taila* is used for *bahya snehana*, it is *balya* in nature. It increases muscle tone and power by reducing stiffness and sluggishness.

### b) **ABHYANTARA SNEHANA –**

In this case *Brahmi ghrita* and *Vachadi ghrita* used for *abhyantar snehana*. *Ghrita* is *vatashamaka*, *balya*, *agnivardhaka*, *vrishya* and improves general condition of body. Also, it has lipophilic action and can cross blood brain barrier. So, it acts on brain.

#### 1. **Brahmi ghrita –**

It is used as *anupana* and for *nasya karma*. Main ingredient is *Brahmi*, it is *medhya* drug and has ability to enhance the efficacy of transmission of nerve impulses, thereby strengthening the memory and cognition.

#### 2. **Vachadi ghrita –**

It is used as *anupana* and for *abhyantar snehanana*. It helps in improving cognition and memory because *vacha* has *kshobhakara* property. Here, patient is having *vismriti* so *vachadi ghrita* helps in improving memory.

#### 1) **BASTI -**

All the *Acharyas* have appreciated *basti* as a unique form of treatment modality for *vata dosha* and also considered as '*Ardha chikitsa*'. It expels vitiated *doshas* rapidly as well as it nourishes the body.

#### **Matra basti -**

*Matra basti* of *tila taila* and *saindhava* helps to remove *strotorodha* and *Pakwashayagata vayu* and relieving constipation. It leads to *vatashamana* as well as decreases blood pressure.

#### 1. **Ksheera basti -**

It contains *Panchatikta*, *bala*, *shatavari*, *ksheera* and *vachadi ghrita*. contents of *basti* have *balya* as well as *tridoshashamak* and *dhatvagnivardhak* properties. The nutritive substances from these drugs get absorbed from gut and leads to *santarpana*.

#### 2) **NASYA –**

*Nasya* means administration of drugs through *nasa* or nose. According to *Acharya Vagbhata*, *Nasa* is the portal gateway of *shira pradesha*.<sup>[6]</sup> The drug administered through the nose reaches to the brain and in *pakshaghata* main pathology lies in brain.

In this study *pratimarsha nasya* is given with *Brahmi ghrita* at night. The *Sneha* means *ghrita* helps in *vatashamana* and acts as a *brihana nasya*.

#### 3) **PATRAPINDA SWEDA –**

It is one of the types of *sagni sweda*. Its ingredients are *Nirgundi*, *Eranda*, *Arka patra*, *Bala* and *Ashwagandha choorna*, *Eranda taila*. All these drugs have *vatshamaka* properties. Which helps to reduce *strotorodha*

and stiffness leads to improvement in muscle tone and power.

#### 4) **CHITRAK HARITAKI AVALEHA –**

It helps in improving metabolism and *agni*. It acts on digestive juices and increases their secretions thus improves digestive power as well as *dosha pachana* and *anulomana*. Helps in relieving constipation.

#### 5) **SWAMALA RASAYANA –**

It is semisolid preparation having *Chyavanaprasha* as its main ingredient, other ingredients are *Suvarna bhasma*, *Roupya bhasma*, *Abhraka bhasma* and *goghrita*. It acts as *rasayana*, *balya* and also improves immunity, infuses fresh energy and relieves physical weakness especially as a result of illness. Also promotes healthy functioning of nervous system.

#### 6) **WAX THERAPY –**

Wax therapy is the form of deep heat therapy that involves the application of molten wax to the affected joints and warming connecting tissues, it leads to muscle relaxation, reduction in stiffness and improvement in joint mobility.

#### 7) **SPLINT -**

It is supportive device or treatment which is used to immobilize the injured body part or joints and for protection and support. Here we give splint over right forearm which stabilizes dislocated shoulder joint and improves blood supply and swelling over fingers get reduced. Also, foot splint is given to right foot for support and stabilization of foot during walking.

#### **CONCLUSION –**



According to observation, in the present study this can be concluded that 'Santarpana chikitsa' is significantly effective in the management of Pakshaghata.

While scope for the further research and clinical trails is enormous, it remains sustained, that with proper diagnosis and selection of treatment protocol.

#### REFERENCES:

1. Vd. Ravidatta Tripathi, Charaka Samhita Chikitsa Sthana 28/55; volume 2; Delhi; Choukhamba Sanskrit pratisthana; 2013; Page no. 697.

2. J. Abrahm, M. D. An epidemiological study of hemiplegia due to stroke in south india, AHA Journal. 1970:1:477-481
3. Ayurvedic Clinical Practices: Dr. L. Mahadevan Iyer ayurvedic Educational & Charitable Trust, 2014; Page no. 352.
4. Vd. Vijay Kale, Charaka Samhita Sutra Sthana 20/11; volume 1, Delhi; Choukhamba Sanskrit pratisthana; 2013; Page no. 301.
5. Vd. Ravidatta Tripathi, Charaka Samhita Chikitsa Sthana 28/54; volume 2, Delhi; Choukhamba Sanskrit pratisthana; 2013; page no. 697.
6. Vd. Brahmanand Trpathi, Ashtang Hridaya Sutra Sthana 20/01, Delhi; Choukhamba Sanskrit pratisthana; 2017; page no. 244.

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#### RESULTS BEFORE AND AFTER STUDY -

(30/11/2019)

(07/12/2019)

(14/12/2019)





(4/01/2020)



(20/01/2020)

REPORTS OF CT BRAIN BEFORE AND AFTER TREATMENT -

**NIRMAN**  
ARTS & SCIENCES CENTRE  
An Diagnostic Centre

**Dr. H.K. Thakrar**  
MD, MRD, DMRT, DNB, DNB  
C.S.C. and Chief Radiologist

Patient Name: [REDACTED] F/ 52 Yrs.  
Ref. by: Dr. [REDACTED] Date: 05-11-2019

**MULTISLICE CT-SCAN OF HEAD**  
**PROVISIONAL REPORT**

Plain CT scan of brain was performed on an ultra fast CT scanner. Retrospective 3D reconstruction of volumetric data was performed to obtain coronal and sagittal MPR / MP images.

- An acute hyperdense hematoma is seen in the left thalamus with extension into the ventricular system with presence of blood in all the supratentorial as well as infratentorial ventricles. The hematoma is seen bulging into the posterior aspect of the 3rd ventricle and reaches upto the right paramedian location where it indents upon the right thalamus. It also indents upon the superior surface of the midbrain. Mild peritumoral vasogenic edema is noted extending into the crus of left mid brain. Minimal obstructive prominence of the left lateral ventricle is noted. The hematoma measures approximately 3.5 x 2.5 x 2.7 on TR X AP X SL.
- Rest of the brain parenchyma is normal.
- Mild diffuse effacement of the bilateral cerebral sulci.
- Minimal bowing of the interventricular septum towards the right without significant midline shift.
- No extra-axial collection or hemorrhage is seen.
- Visualized paranasal and mastoid sinuses are clear.
- The skull appears normal.

Dr. Kunal P. Nadgarwal  
CNS

**KINDLY AWAIT FINAL REPORT**

**PAREL MIDTOWN**  
IMAGING  
A MULTI-SPECIALTY CERTIFIED DIAGNOSTIC CENTRE

Dr. [REDACTED] F/ 52 Yrs.  
Date: 23-Jan-2020  
Age / Sex: 55 Years / F  
No. 4

Patient Name: [REDACTED]  
Referred by: Dr. [REDACTED] POGAR HOSPITAL

**CT SCAN OF BRAIN**

CT: Acute left thalamic bleed.

Previous case isn't available for comparison.

Acial plane CT scan of the brain has been performed using 5 mm contiguous slices.

Hypodense area is noted in left thalamus.

Rest of the supratentorial brain parenchyma is normal.

No focal ischaemic or traumatic lesion is seen.

The ventricular system is normal.

The cisterns appear normal.

Basal ganglia and brain stem appear normal.

Basal ganglia and brain stem appear normal.

The sulci and cisterns appear normal.

**DISCUSSION**

In acute left thalamic bleed, CT shows

Hypodense area in left thalamus - suggestive of resolving hematoma.

Dr. Sagar Deshpande  
DMRT, DNB  
(Sr. Consultant Radiologist)

Dr. Charvi Raut  
DMRT  
(Consultant Radiologist)