



## Review Article

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### AN INDIVIDUALIZED TREATMENT PROTOCOL DEVELOPMENT IN THE MANAGEMENT OF PAKSHAGHATA (ACUTE STAGE OF ISCHEMIC STROKE): A REVIEW

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#### ABSTRACT

Stroke is one of the leading cause of death and the treatment so far has no promising results. where the drugs only assuage the symptoms temporarily and the underlying pathology goes on progressively to worsen the condition. Though ample research is being carried out for alleviating the disease and new avenues are being explored, Followed by physical rehabilitation, physiotherapy etc., yet the disease have not been dominated and remain incurable. To add it up, the adverse effects pose distant threat to the well-being. A rapid review of recent Ayurvedic research literature on subject of Pakshaghata indicates that there are no previous studies which have documented individualized clinical management strategy based on dosha dushya samurchana and its clinical outcomes. Pakshaghata treatment schedule adopted according to the stage (avastha) i.e. in acute stage the immediate aim is to maintain the lifestyle and to prevent the further complications like teekshna nasya, hima dhara, talam, sadya virechana, agni lepa and basti karma, so here protocol is developed which is already being followed giving promising results in acute conditions.

**Keywords:** Pakshaghata, Ischemic stroke, Avastika chikitsa, Ayurvedic protocol

#### INTRODUCTION

Cerebrovascular accident (CVA)<sup>1</sup> is the third leading cause of death in developing countries. It accounts for 20% of neurological admissions. This disease has posed a great problem to the medical field as far as its treatment is concerned there are no promising results.

The disease symptoms vary from patients to patients according to the pathology involved (dosha- dushya sammurchana) like impairment in sensory functions, motor disability and mental functions. The signs and symptoms depends on predominance of dosha which is being presented based on which it can be differentiated as ischemic or haemorrhagic one.

The treatment of Pakshaghata is time consuming and expensive too. With advent of modern drugs, the treatment pattern of disease has grossly changed, where the drugs employed counteracts only symptoms temporarily and the underlying pathology goes on progressively to worsen the condition decreasing the quality of life of the patient. Though ample research is being carried out for overcoming the disease and new avenues and dimensions are being explored for treating early ischemic changes by thrombolytic agents, physical rehabilitation and physiotherapy etc, yet the disease has not been dominated and remain incurable. To add it up, the adverse effects pose distant threat to the well-being.

A rapid review of recent Ayurvedic research literature on subject of Pakshaghata indicates that there are no previous studies which have documented individualized clinical management strategy based on dosha dushya vichara and its clinical outcomes<sup>2</sup>.

Pakshaghata treatment schedule adopted according to the stage (avastha)<sup>3</sup> i.e. in acute stage the immediate aim is to maintain the lifestyle and to prevent the further complications. The patient's condition must be stabilized in the emergency room and strategies to re-establish the circulation in the acute condition of stroke.

Panchakarma like nasya, basti, virechana forms a very important part of the treatment plan for pakshaghata and their application wholly depends on Dosha-dushya avasta.

Previous studies have restricted themselves to evaluation of partial aspects of Ayurveda management at times limited to illogical herbal drug trial's and dissected panchakarma procedures and their outcomes

Hence there is need for Ayurvedic protocol development and its driven clinical trials is beginning to be felt in professional Ayurvedic circle<sup>4</sup> because in the recent times under the influence of biomedical treatment strategies, Ayurvedic researchers have tended to reduce their holistic and individual specific management strategies to uniform treatments mimicking allopathic treatments under the mistaken belief that research designs based on classical Ayurvedic protocols are not researchable.

#### Stroke

Stroke syndrome is a medical emergency, the rapidly developing loss of brain functions due to disturbances in blood supply to the brain<sup>5</sup> it is cardinal feature of CVA. The term stroke is used for sudden and dramatic development of focal neurologic deficit, varying from trivial neurologic disorder to hemiplegia, coma and death<sup>6</sup>.

### Definition of stroke

According to WHO- Rapidly developing cerebral symptoms or signs of focal disturbance of function with symptoms lasting more than 24hours leading to death with no apparent cause other than that of vascular origin<sup>7</sup>.

This definition supports to reflect the reversibility of tissue damage and was devised for the purpose, with the time frame of 24 hours being chosen arbitrarily.

### Classification of Stroke <sup>8</sup>

It can be classified into two major categories,

1. Ischemic stroke
2. Haemorrhagic stroke

Ischemic stroke is caused by interruption of blood supply while haemorrhagic results from rupture of blood vessels or by abnormal vascular structure. About 87% of stroke are caused by ischemia.

#### 1. Ischemic stroke

In an ischaemic stroke blood supply to the part of brain is decreased, leading to dysfunction of brain tissue in that area caused by

- Thrombus
- Embolism
- Systemic hypoperfusion
- Venous thrombosis

#### Diagnosis

Neurological examination, CT scan, Doppler ultrasound, Arteriography

Blood test will also help to find out the cause

#### Treatment <sup>9</sup>

Ischemic stroke- Thrombolysis

Haemorrhagic stroke- neurosurgery

Rehabilitation (speech, language, physiotherapies)

### According to Ayurveda

The word Pakshaghata include pakshaghata and agata.

Paksha

Dalhana says- Paksham shareerardham;

Aghata

The word agata means several meanings it can be considered killing, blow or injury it is quoted in various context mutra agata, so we can consider pakshaghata as one side reduced activity or complete loss of function.

Pakshaghata occur when prakupita vata dosha seizing half of the body cause dryness of the siras and snayu and make loosening the joints of the body and become unavailable of any function is may also occur in all body if vata invade the entire body.

Prakopaka karanas of Vata dosha

Whatever nidana may be responsible, vata dosha is the vyadhi swaroopaa dosha for pakshaghata, Excess intake of kashaya rasa i.e., aharaja nidana, as a complication of vrana, due to rakta srava, abhi ghata to sira and lohita marma causes abhyantara marmaghata.

There are three possibilities-

a. Margavarana

b. Dhatu kshaya

By both dhatu kshaya and margavarana

Kapha/pitta (all over the body)

Rakta (locally)

Mamsa, meda, asthi, sandhi (at their srotas)

So while planning the treatment one should thoroughly observe the above three factors or avasthas because treatment will vary according to the above three stages.

#### Samprapti <sup>10</sup>

Due to aharaja and krimi nidana raktadusti occurs that may be vataja, pittajaor kaphaja swarupa by raktaavarna leading to vata prakopa getting sthanasamshraya in triyag dhamani at urdha deha causing pakshaghata.

Table 1: Purva Rupa

Roopa	Charaka Samhita	Sushruta Samhita	Astanga Sangraha	Astanga Hrudaya	Madhava Nidana
Chestanivritti	+	+	+	+	+
Vak stamba	+	-	-	-	-
Vedana	+	-	-	-	-
Achetan	-	+	+	+	+
Sira snayu sopha	+	-	+	+	+
Sandibanda vimoksha	-	+	+	+	+
Hasta pada sankocha	+	-	-	-	+
Daha	-	-	-	-	+
Santapa	-	-	-	-	+
Murcha	-	-	-	-	+
Shaitilya	-	-	-	-	+
Shotha	-	-	-	-	+
Gaurava	-	-	-	-	+

Table 2: Types and sadya aasadyata

Kevala vataja	Ruju, sankocha, stamba	Kruchasadya
Any doshaja • Pitta samanvita • Kapha samanvita • Kapha pitta samanvita	Pitta-Murcha, sanyasa, daha, santapa Kapha-Saithya, gourava, sotha, numbness	Sadhya
Raktasrutijanya dhatu kshaya vataja		Asadhya

Possible practical presentations in Acute stages of Pakshaghata  
 In Akshepaka avastha- With convulsions  
 In Mada avastha- Semiconscious  
 In murcha avastha- Unconscious  
 In sanyasa- Coma  
 Kevala Vataja paksagata with or without vata/pitta samshraya-  
 Conscious

### Chikitsa<sup>11</sup>

Before going to begin the treatment schedule one should confirm the hetu vishesha i.e., pitta adi avarana. In chikitsa sutra snehana, swedana, virechana is told which is the ultimate treatment for pakshaghata, but in acute stage patients come in stage of Mada murcha and sanyasa or akshepaka along with pakshaghata. So treatment can be planned in two ways.

#### According to the cause of rakta dusti

Due to rakta krimi- Prakruti vigatana and krimi hara chikitsa should be done nothing but killing the krimi.  
 Due to abhi ghaata - shalya chikitsa is needed  
 Due to abhi ghata - Doshas has to be treated

#### According to the pradhana dosha

In all types of Vata prakopa we should evaluate Pitta and kapha samshraya  
 In Pitta and vata- Treatment should be planned for Pitta than Vata  
 In Kapha and Vata- Treatment should be planned for Kapha than Vata  
 In case if patients presents with Murcha, mada and sanyasa which is pitta pradhana pitta hara chikitsa i.e., treatment

protocol of murcha should be done. So as dosha vipreta chikitsa in murcha sheeta seka, avagha, pra deha, sheetal paneeya and pitta jwara hara chikitsa should be done.

Even though murcha I one of pitta pradhana vyadhi, as vyadhi pratyanka chikitsa one should plan teekshna virechana to remove tama avarana from samjnavaha srotas so jwaraghana chikitsa too can be adopted in murcha too.

For Akshepaka we have to do

1. Teekshna ava peedana nasya
2. Prabhuta matra snehapana

#### a. Kevala vataja

sneha virechana, anuvasana, asthapana treatment should be done.

#### b. Vata or pitta dosha samanvitha

Here vataja vatarakta chikitsa should be done accordingly, if both present pitta should be treated first.

Some adoptable treatment for pittaja akshepaka avastha- sheeta pariseka, sheeta alepa, sheeta madhura kashaya, pittajwara chikitsa, madhura tikta gritha, shatadouta ghruta alepa<sup>13</sup>.

#### In kaphaja samanvitha

Gurutwa, staimithya, stamba lakshanas can be seen where mrudu/sneha virechana, kapha ama pachana by rooksha alepa, abhyanga with sarshapa taila, basti karma.

#### c. For kevala vataja pakshaghata

After patient relieved from pittaja and kaphaja avastha and vataja symptoms more clear and classical pakshaghata treatment can be taken like shirobasti, taila dhara, shastika shali pinda sweda etc in nirama stage.

Table 3: Protocol

Condition	Treatment
Acute patient of pakshaghata Mada/Murcha/Sanyasa Akshepaka avastha	<b>Himadhara</b> (dhanyaka + amalaki) for 20min Talam with Shatadhauta ghruta and manjishtadi <b>Sheeta alepa</b> with Shatadhauta ghruta all over the body <b>Teekshna nasya</b> (according to condition) 8 drops in each nostrils <b>Kavala graham</b> with Triphala +Trikatu+Honey
	<b>Sarpipana</b> Prabhuta matra snehapana In vata-Kalyanaka ghruta Pitta- Panchatikta ghruta Kapha- Panchagavya ghruta
When pittaja symptoms are relieved	<b>Mridu virechana</b> 30ml Gandharva hastadi eranda taila with ksheera or water according to dosha
Gaurava ,stamba symptoms of kapha remains	<b>Ruksha lepa/Agni lepa</b> (Nirgundi + maricha + lavanga + lashuna + tulasi + agnimantha + kola) 1 time a day <b>Abhyanga</b> with sarshapa taila before giving basti <b>Bastikarma</b> - Amahara and kaphahara
When kaphaja laxanas are relieved and only vataja symptoms remains vatahara chikitsa should be done like brimhana chikitsa	<b>Shirodhara</b> with Bala taila for 30 minutes <b>Abhyanga</b> with Ksheerabala taila <b>Brimhana basti</b> <b>Upanaha</b>

## DISCUSSION

The treatment planned is according to dosha-samsarga when the patient comes in murcha mada and sanyasa avastha the treatment adopted is of murcha chikitsa, where in teekshna nasya is advised to remove the avarana in the sanjna vaha srotas for sanjna prabodhana, even though murcha is pitta pradhana vyadhi the nasya<sup>12</sup> given is teekshna which is vyadhi viparita chikitsa so to counter balance the dosha hima dhara is done along with talam and sheeta alepa which is pitta/jwara hara doshapratyanika chikitsa. Acha sarpi pana is also done in

prabhuta matra as told in chikitsa sutra which hinders the prevalence of vata further followed by snigdha virechan as quoted in Pitta Vata rakta chikitsa<sup>14</sup>.

Once pittaja lakshanas are relieved the symptoms of kapha like stamba and gaurava remains for which ama/kapharahara treatment is done by rookshaalepa/ agni lepa which contains teekshna drugs that does ama pachana and helps in reducing the ama, along with sarvanga abhyanga with sarshapa taila followed by kaphahara basti is planned in the yoga basti pattern at the end of treatment kapha samargaja lakshanas are reduced completely.

Now only vataja ie kevala vataja lakshanas are remained like ruja, sankocha where brimhana treatment should is to be done in the form of abhyanga, shiro basti, brihmana basti and upanaha thus overcoming the prakupita vayu restoring the normal functioning of affected limbs.

## CONCLUSION

The treatment planned is purely based on dosha avasta which helps in counteracting the symptoms step by step according to the predominant dosha being presented. Protocol based treatment of acute stroke depending on the presentations of patients helps in establishment of dosha vigatana chikitsa which is the most important in treating any disease, The present study on expects to establish that an individualized treatment protocol for pakshaghata is the correct Ayurvedic management strategy and therefore necessary, by demonstrating that in the cases studied, there is adversity in the presenting dosha and avastha symptoms. Today, even in biomedicine, the hypothesis in pharmaco genomics, is that individualized treatments based on genotypes is more scientific than uniform approaches to treatment which can be well appreciated in Ayurveda literature where in complete treatment of disease is been explained based on doshas.

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