



## CLINICAL APPROACH TO CEREBROVASCULAR ACCIDENT IN AYURVEDA

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### ABSTRACT

**Background:** Cerebrovascular accident (CVA) is the medical term for a stroke. A stroke is a medical condition in which poor blood flow to the brain results in death. There are two main types of stroke; ischemic, due to lack of blood flow and hemorrhagic, due to bleeding. They result in part of the brain not functioning properly. The most common symptom of a stroke is sudden weakness or numbness of the face, arm or leg, most often on one side of the body. Other symptoms include: confusion, difficulty in speaking or understanding speech; difficulty in seeing with one or both eyes; difficulty in walking, dizziness, loss of balance or coordination; severe headache with no known cause; fainting or unconsciousness. The main risk factor for stroke is high blood pressure. Other risk factors include tobacco smoking, obesity, high blood cholesterol, diabetes mellitus, a previous TIA and atrial fibrillation. **Objective:** Here an attempt is made to understand and apply the treatment principles of *Pakshaghata* based on the *avarana* concept and adopting suitable treatment modalities. **Material & Method:** The authentic subject material has been reviewed from Ayurveda & modern medical literature. Different research & review article were searched on internet. **Discussion and conclusion:** The management in contemporary science varies with that of the cause. CVA is broadly understood under the term *Pakshaghata* which is considered to be a *Vata Vyadhi* in Ayurveda, which can manifest due to *Dhatu Kshaya* leading to *Kevala Vata Vyadhi* or due to *Avarana*. The line of treatment varies according to the cause; *Kevala Vata Janita Pakshaghata Vatasya Upakrama* can be employed and in case of *Avarana*; *Avruta* i.e., *kapha or meda or pitta* to be relived first then it to be treated in lines of *Kevala Vata Vyadhi Chikitsa*. Thus the clinical approach to CVA varies accordingly with the *dosha* and *Avastha* of the *vyadhi*.

**Keywords:** CVA, *Pakshaghata*, *Vata Vyadhi*, *Dhatu Kshaya*, *Kevala VataVyadhi Chikitsa*.

**INTRODUCTION:** WHO (World Health Organization) defined Stroke as “Rapidly developing clinical signs of focal (or global) disturbance of cerebral function, with symptoms lasting 24 hours or longer or leading to death, with no apparent cause other than of vascular origin”<sup>1</sup>.

Stroke is said to be one of the leading causes of death and disability in India. The estimated adjusted prevalence rate of stroke range, **84-262 / 1,00,000** in rural and **334-424 / 1,00,000** in urban areas. The

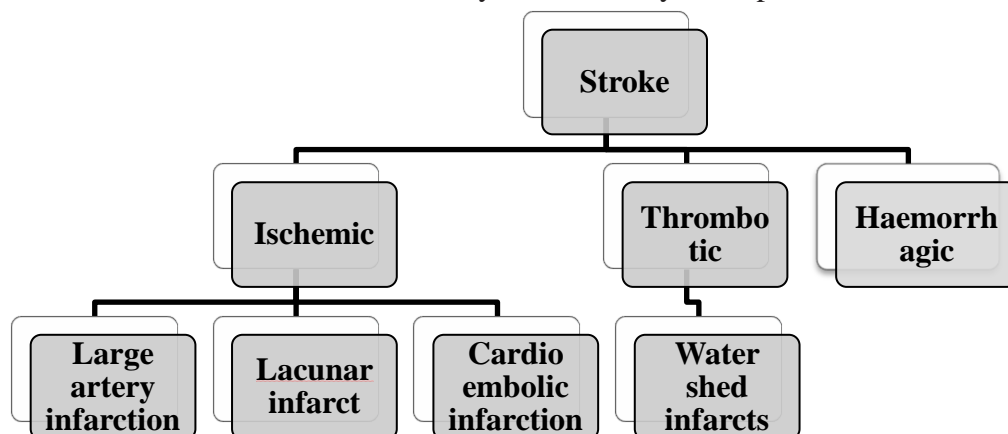
incidence rate is **119-145 / 100,000** based on the recent population based studies<sup>2</sup>.

The term CVA embraces of<sup>3</sup>–

Diseases of cerebral arteries, Diseases of heart (In which it may adversely affect the blood supply to the brain by changes in blood pressure or as a source of emboli). Disorders of the blood (which may lead to impaired clotting, causing haemorrhage, hyper viscosity or hypercoagulable states which increase the tendency for cerebral thrombosis).

There are two main types of cerebrovascular accident, or stroke: an ischemic stroke is caused by a

blockage, it may be due to embolus or thrombus; a haemorrhagic stroke is caused by the rupture of a blood vessel.



Symptoms typically start suddenly, over seconds to minutes, and in most cases do

not progress further. The symptoms depend on the area of the brain affected.

#### Current approach to stroke in contemporary science<sup>4</sup>-

Aim of the treatment	Major drugs used
Thrombolytic-alteplase(rt-PA)	Thrombolytics
Reperfusion- recanalization	Diuretics to reduce cerebral edema
Antiplatelets	Aspirin, clopidogrel
Anticoagulants	Warfarin ,LMWH
Neuroprotective	Citicoline, vitamins
Symptomatic treatment	Management of HTN
Improving ADL	Physiotherapy

#### **Analysis of CVA (Stroke) in Ayurveda:-**

CVA is broadly understood under the term *Pakshaghata* which is considered to be a *Vata Vyadhi* in Ayurveda, which can manifest due to *Dhatu Kshaya* leading to *Kevala Vata Vyadhi* or due to *Avarana*<sup>5</sup>.

#### **Other conditions under which CVA can be understood are-**

- *Prana Avriha Vyana*<sup>6</sup> / *Pranavruta Samana*<sup>7</sup>
- Various etiological factors which in turn produce *Srotorodha* or *Srotorodha* in *Murdhini* cause this condition.
- *Siragata Vata*<sup>8</sup>, *Snayu Gata Vata*<sup>9</sup>, *Madhyama Roga Marga Vyadhi*<sup>10</sup>, *Marmasta Vyadhi*<sup>11</sup>, *Karma Hani* at *Uttamanga*.

• *Srotorodha* or *Avarana* to *Rakta Sanchara*, *Dhatu Kshaya- Mastulunga Kshaya*<sup>12</sup>, *Vata Pratilomata*.

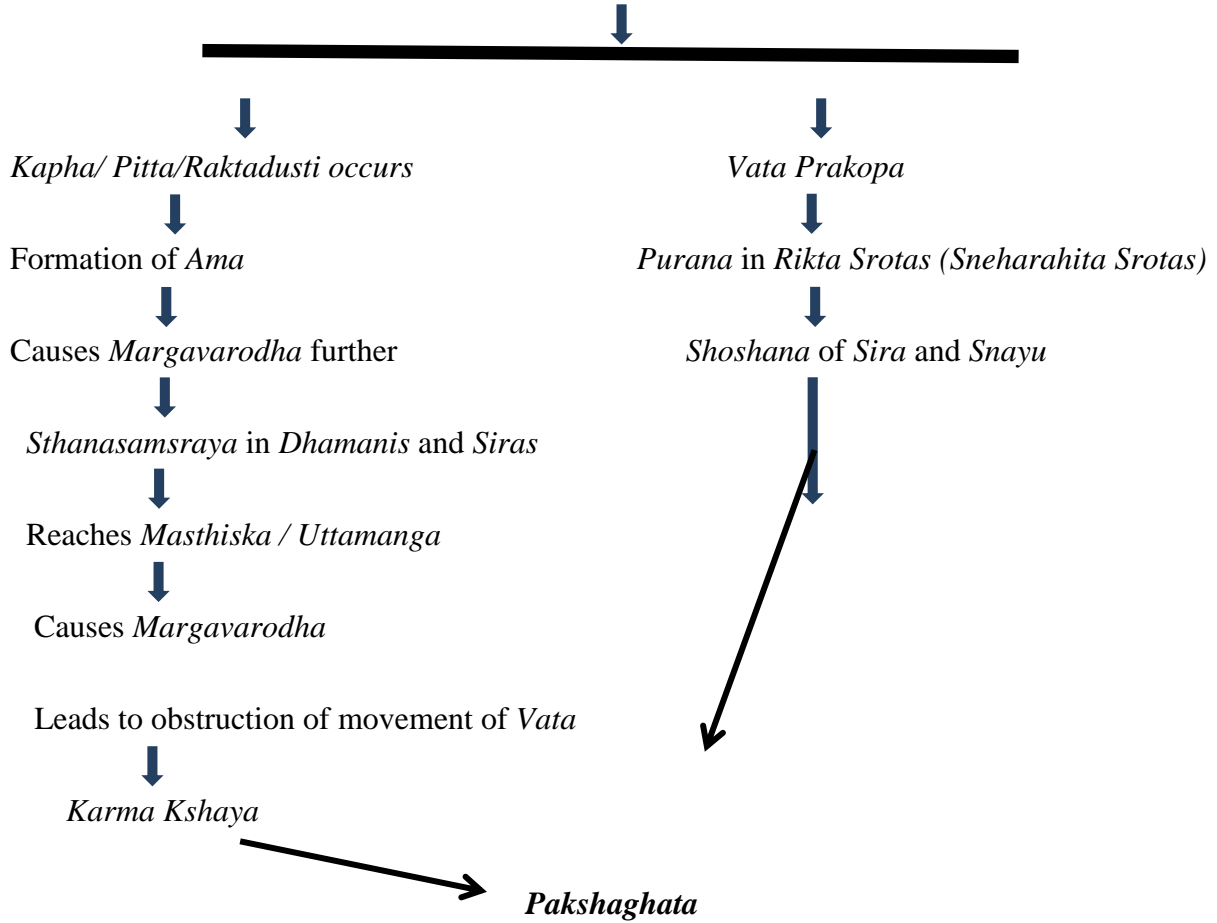
The word *Pakshaghata* includes 2 words *Paksha* and *Agata*. Acharya Dalhana comments *Paksha* as *Paksham Shareerardham*<sup>13</sup>; *Aghata* has several meanings it can be considered blow or injury, so we can consider *Pakshaghata* as one side reduced activity or complete loss of function<sup>14</sup>.

#### ***Nidana-***

Particular *Nidana* (Etiology) for *Pakshaghata* is not mentioned in classics, *Ati Vyayama* (Excessive exertion), *Nitya Katu Rasa Sevana* (Consuming pungent things), *Ati Dhumapana* (excessive smoking), *Ati Madyapana* (Excessive Alcohol intake), *Chintha* (worries) and

General Vata Vyadhi Nidana can be considered<sup>15a</sup>.

**Samprapti-  
Nidana Sevana**



**Samprapti Ghataka**

- Dosha - Vata Pradhana Tridosha
- Dushya - Rasa, Rakta, Mansa, Meda
- Agni - Jataragni, Dhatwagni
- Ama - Jataragni and Dhatwagni Janya Ama
- Srotas - Rasavaha, Raktavaha, Mansavaha, Pranvaha
- Srotodushti Prakara- Sanga

- Udhhava Sthana - Pakwashaya (Adho Amashaya and Urdhwa Pakwashaya)
- Sanchara Sthana - Rasayani, Vatavaha Sira<sup>15b</sup>, Urdhwa-Adha-Tiryak Dhamani
- Vyakta Sthana - Sarva Shareera
- Adhithana - Shariardha Bhaga
- Vyadhi Swabhava - Chirakari, Ashukari
- Sadhya/Asadhyata - Krucchasadhya, Asadhya

**Clinical Features / Lakshanas –**

Clinical Features Seen in Stroke	Probable Co-Relation with Lakshanas Mentioned in Ayurveda Classics
Sudden numbness or weakness in the face, arm, or leg, especially on one side of the body	Ardha Kayasya Achetana, Vichetana <sup>16</sup>

Sudden trouble seeing in one or both eyes, Visual field defect	<i>Stabdha Netrata, Akshi Ruk</i> <sup>17</sup> , <i>Indriya Bramsha</i> <sup>18</sup>
Sudden trouble walking, dizziness, loss of balance, or lack of co-ordination, Apraxia	<i>Gati/ Sarva Kriyasu Asamarthaha</i> i.e., hamper in functions of <i>Vyana Vayu</i> <sup>19</sup>
Sudden severe headache with no known cause	<i>Shanka Ruk</i> <sup>20</sup>
Aphasia, trouble speaking, Dysarthria	<i>Vak Sanga</i> <sup>21</sup> / <i>Mukatva/ Gadgadatva</i> <sup>22</sup>

**Approach to stroke in Ayurveda-**

PAKSHAGATA

CT SCAN/MRI BRAIN

VASCULAR NATURE CONFIRMED

ACUTE INFARCT / BLEED

CHRONIC INFARCT

AVARANA

DHATUKSAHYA

AVARANA CHIKITSA KEVALA

VATA VYADHI CHIKITSA

**Atyayika Chikitsa –**

- *Vacha Churna* or *Brihat Vata Chintamani rasa* or *Sameera pannaga rasa Pradhama Nasya* for *Sajna Prabhodana*

- *Agnilepa Chikitsa* for *Rukshana* and *Avaranahara*
- *Kevala vatahara upakrama.*

**Treatment-**

**Kevala Vata Chikitsa**<sup>23</sup>

<i>Snehana</i>	<i>In Kevala Vata Vyadhi + Dhatukshaya</i>	<i>Snehapana, Snehana Nasya, Abhyanga, Pizichil, Anuvasana Basti</i>
<i>Snehapoorvaka Svedanam</i>	<i>In Hastha-Pada Sankocha, Ruk, Sthambha, Vakrata, Shoshsa</i>	<i>Nadi Sweda, Prastara, Sankara, Patra Pinda Sweda, Shastika Shali Pinda Sweda</i>
<i>Samshodhana</i>	<i>Mrudu samshodhana</i>	<i>Snigdha Virechana</i>
	<i>Niruha basti</i>	<i>Rajayapana Basti</i>

**Avarana Chikitsa**

<b>Avarana</b>	<b>Treatment</b>
<i>Pittavruta Vata</i> <sup>24</sup>	<i>Virechana, Jevaneeya Ghritha Pana, Yapana Basti, Ksheera Basti</i>
<i>Kaphavruta Vata</i> <sup>25</sup>	<i>Snehapana with Purana Ghritha, Sarshapa Taila, Swedana Niruha Basti, Vamana, Virechana</i>
<i>Pranavruta Vyana</i> <sup>26</sup>	<i>Snehana, Swedana, Pradhama Nasya, Virechana</i>

**Shamana Oushadis-**

<b>ACUTE</b>	<b>CHRONIC</b>
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<p><i>Tapyadi Loha</i>  <i>Swarnamakshika Bhasma</i>  <i>Trailokiyachintamni Rasa</i>  <i>Manjishta Kwatha</i>  <i>Shilajithu Rasayana</i>  <i>Yogendara Rasa</i>  <i>Kamadugha Rasa</i>  <i>Rasaraj Rasa</i></p>	<p><i>Sameerapannag Rasa</i>  <i>Ekangaveera Rasa</i>  <i>Vata Vidhwamsa Rasa</i>  <i>Brihat Vata Chintamani Rasa</i>  <i>Smriti Sagara Rasa</i>  <i>Brahmi Vati</i>  <i>Bhadradarvyadhi Kashaya</i>  <i>Ashtavarga Kashaya</i></p>
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**DISCUSSION:**The neurological disorders can be manifested due to *Upahata Maruta* (Improper functioning of *Vata*), *Upahata Dhatu Ushma* (Agni Mandya leading formation of *Ama*) and *Upahata Srotas*<sup>27</sup>(obstruction in the pathway) hence forth the main aim of the treatment lies in correcting this pathology. In all *Vata Vyadhi Snehana* is the first line of treatment mentioned in *Ayurveda* when it is a *Kevala Vata Janita Vyadhi* and

**Case 1-**

46 years Old Male Diagnosed Left MCA Infarct with Right Sided Hemiplegia was admitted to our IPD After 15days Of ICU management.

**O/E-**

Bowels – Constipated; Bladder – Catheterised.

No other Co-morbids

CRANIAL NERVES FUNCTION - INTACT

Hemiplegic Gait

Muscle Power- UL- 3/5; LL- 3/5;

DTR - +++, Babinski – upwards fanning.

UMN Lesion

**Diagnosis** – DHATU KSHAYA JANYA PAKSHGATHA / Right Sided Hemiplegia

**Approach** –

In this case initial *Agni Lepa - Rukshana Chikitsa* was carried out for 3 days; for *Shesha Dosha Pachana* later *Snehana* line of treatment was employed with *Mustadi Rajayapana Basti- Kala Basti, Mastiskya*. For a Period of 14 days.

**Shamana oushadi - 30 days**

- Cap. Palsineuron 1 TID
- Tab. Tapyadi loha 2 BD
- *Bhadradarvyadhi Kashaya*

*Pakshaghata*; in case of *Avarana* the relieving of *Avarana* becomes the first line of treatment followed by *Snehana*. As per *Acharya Kashyapa Shiras* is *Moola* for the *Snayus*; the main pathology involved in case of *Pakshaghata* is *Sira* and *Snayu Shoshana*(*Mastulunga Kshaya-Snehamsha Kshaya*) thus *Snehana* in terms of *Snehapana, Murdhnini Taila* or any other modes will do *Samprapthi Vighatana*.

**CASE EXAMPLES-**

- Gandharvahasthyadi taila 20 ml HS after food

**Post Treatment-**

Gait Improved

Muscle Power – 5/5 in Both Limbs,

There was no traces of patient had an Episode of stroke.

**Case 2-**

A 55year old female who was a k/c/o hypertensive was brought to our OPD with sudden onset of weakness in left half of the body with tingling sensation in left half of the body.

**O/E- K/C/O** – Hypertension on OAH (Tab.Telma 20mg 1OD) since 20 years irregularly.

Altered sensorium, muscle weakness- left UL: 4/5; LL: 4/5, DTR - +++, Babinski – upwards fanning.

**Diagnosis- AVARANA JANYA PAKSHAGATHA / LEFT SIDED HEMIPLEGIA**

? Haemorrhagic.

**CT scan Brain (plain) - LACUNAR INFARCT DUE TO HYPERTENSIVE BLEED**

**Approach-**

Here the patient was treated to clear the *Upahata Srotas* the obstruction was

relieved by giving *Pradhamana Nasya* with *Brihat Vata Chintamani* 6tab thrice per day.

*Talam- Vacha, Amalaki* for 7 days

*Arjuna Ksheera Paka* as *Pana* FOR 14 days

**Shamana oushadi - 7 days**

- Cap. Palsineuron 1 TID
- Tab. Sagarlic 2 BD
- Gandharvahasthyadi taila 20 ml HS after food

### Post Treatment

Patient has no signs and symptoms of weakness post 7 days further he was advised rehabilitation and physiotherapy.

### CONCLUSION;

The treatment in neurological diseases poses a great challenge in modern medicine as they follow a chronic pattern with very insignificant improvement in treatment outcome. Understanding the disease with careful analysis of *Avastha* of *Vyadhi*, giving prime importance to the *Dosha- Dooshya Samoorchana* and underlying *Avarana*, an eminent physician should adopt the necessary modalities of treatment. *Virechana* is beneficial in *Pakshaghata* in *Margavarana Samprapti*. In treatment of *Dhatu Ksayaja Pakshaghata Brimhana & Basti Karma* are beneficial. Early management and rehabilitation is the need of the hour for the better prognosis and to minimize the residual effects of CVA.

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