



AYURVEDIC MANAGEMENT OF PAKSHAGHATA (STROKE): A RETROSPECTIVE STUDY

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**ABSTRACT**

**BACKGROUND:** Pakshaghata (paralysis) is a known disease to all around and its incidence in India is 3%. **MATERIALS AND METHODS:** A retrospective study was conducted and the incidence and improvement of it after Ayurveda treatment by studying case records from Medical Record Department of KLE Ayurveda Hospital and Medical Research Centre, Belagavi 2010-2017. **RESULTS:** Results showed there were totally 202 cases reported after treatment 81% of them improved (21%-60%) in their condition. **CONCLUSION:** In conclusion, the study proved effectiveness of treatment in paralysis and satisfaction of patients.

**KEYWORDS :** Pakshaghata, Stroke, Basti, Nasya, Abhyanga, Swedana.

**INTRODUCTION**

Cerebro Vascular Attack (CVA) is generally known as stroke which is very common throughout the world. According to signs and symptoms in Ayurveda paralysis can be correlated to *pakshaghata* (*paksh*= right or left lateral half of the body, *aghata*= paralysis). In whole it is the loss of muscle functions in a part or one half of the body (1). Walker et al. (2016) (2) considered this as the most common clinical manifestation of cerebrovascular disease resulting in episode of brain dysfunction due to focal ischaemia or haemorrhage. It is the fifth leading cause of death and disability in USA (3). The prevalence of stroke in India is approximately 200 per 100000 population (4)

According to Ayurveda it occurs in more people at the beginning of rainy season and during winter season. It is experienced more in night and in early morning (5,6). Ayurveda considers psychic factors (7,8) diet as well as lifestyle of the person as important causes for stroke (9)

Treatment for *pakshaghata*(stroke) in Ayurveda differs from patient to patient, depending on the condition (10)

The aim of this study is to understand the severity of this condition in this part of the country, Belagavi, province of Karnataka.

**MATERIALS AND METHODS**

In this retrospective study on stroke, case records were taken from Medical Records Department (MRD) of KLE Ayurveda Hospital and Medical Research Centre, Belagavi from January 2010 to December 2017.

Depending upon the aetiology and type of stroke various treatments were adopted by physicians. Treatment offered in Ayurveda medications are of internal and external in nature. Internal medications given to patients of this study were mainly: 1) *Brhat Vata Chintamani* 2) *Rasnasaptak Kashaya* 3) *Dhana dhanyak Kashaya* 4) *Yogendra Rasa* 5) *Gorochanadivati* 6) *Kalyanakaghrita/ Panchatiktaghrita* and 7) *Gandharv chastadi eranda taila with ksheera*(milk). External medications were either : 1) *Abhyanga* with *balataila, ksheerabala taila* or *mahanarayana taila* for 30 minutes 2) *Shastikashali pindasweda* 3) *Shirodhara* with *bala taila* for 30 mins 4) *Himadhara* with *dhanyaka+amalaki* for 20 mins 5) *Shirotalam* with *shatadhauta ghrita* and *manjisthadi choorna*

6) *Agnilepa* with *nirgundi, agnimantha, nimba, vacha, pippali, erandapatra* 7) *Teekshna nasya* with *tulasi swarasa +shunti swarasa* 8) *Jivha nirlekhana* with *vacha* and *yastimadhu choorna* or 9) *Niruha basti* with *eranda moola* and *Anuvasana Basti* with *Dhanawantara taila* or *Sahacharadi taila* Depending on the condition, most of the patients were advised for follow up and the type of treatment may differ as decided by the physician.

**RESULTS**

A total number of 202 cases (male 151, female 51) were reported during the period of study for treatment. Their distribution according to age and sex is shown in Table 1.

**Table 1: Distribution of patients according to age and sex**

Age in years	Male	Female
16-20	07	04
21-30	09	04
31-40	07	05
41-50	19	11
51-60	42	09
61-70	29	14
71-80	27	09
81-90	04	02

History of patients with Diabetes Mellitus (DM), Hypertension (HTN), Diabetes Mellitus and Hypertension (DM+HTN) and Trauma were studied and number of these cases are shown below:

DM		HTN		DM+HTN		TRAUMA	
Male	Female	Male	Female	Male	Female	Male	Female
05	11	26	21	16	09	03	03

The improvement experienced and reported by patients from treatment is given in Table 2

**Table 2: Progress in treatment as reported by patients**

Percentage of improvement	Male	Female	Total
<20	19	03	22
21-40	68	30	98
41-60	52	15	67
61-80	10	02	12
81-100	02	01	03

**DISCUSSION**

Usually, most stroke patients tend to survive the initial period.

This is followed with long-term effect leading to impairment, disability and reduced activities (11). Aggravated *vata dosha* (one of the three humors in the body responsible for movement and activity) causes dryness of *shiras* (blood vessels) and *snayu* (muscles) leading to loss of movement, unconsciousness, loss of speech. Depending upon the body part involved *pakshagata* (paralysis) can be classified as *Ekangavata* (affecting only one arm), *Ardhangaghata* (either of both the upper or lower extremities) and *Sarvangaghata* (involving both arms and legs) (12)

General line of treatment for all types of stroke include use of medicated *ghrta* (ghee), *taila* (oils), *vasa* (animal fats) and *majja* (bone marrow) in the form of *basti* (enemas), *abhyanga* (massage), *swedana* (fomentation), *virechana* (purgation) and *teekshna nasya* (instillation of nasal drops).

Nose is the gateway of cranial cavity (13). *Nasya* (nasal drops) done with drugs having properties such as *teekshna* (penetrating) and *ushna* (hot) in nature immediately clears the obstruction and improves the flow of blood to the cells adjacent to the infarct area which may be partially dead. By the irritation of this drug the neuroplasticity action in brain cells is enhanced leading to an increased flush of blood to penumbra and thereby encouraging the collateral flow of blood to reach the penumbra and save the dying brain tissues (14). Application of *sheeta upakramas* (cold therapies) such as *shirodhara/himadhara* (gentle pouring of liquids over the forehead), *shirootalam* (tying of medicated herbal paste) on the head helps in reducing cerebral oedema. *Abhyanga* (massage) softens the skin, gives soothing effect, allows free movement, reduces the spasticity and rigidity in joints as well as muscles, improves blood circulation to the muscles and relieves pain. In long term, muscle wasting is prevented. *Swedana* (fomentation) with *Shastikashalipindasweda* (rice stored for sixty days and prepared in milk processed with herbal decoction and tied in boluses) helps in nourishing the degenerated tissues and improves the tone of the body. *Swedana* (fomentation) increases the metabolic activity which in turn increases the oxygen demand and blood flow. This vasodilation stimulates the superficial nerve ending causing a reflex dilation of the arterioles. Due to the effect of heat on the sensory nerve endings there, lead to a reflex stimulation of sweat glands in the areas exposed to heat. This rise in temperature induces muscle relaxation and increases the efficacy of muscle action as the increased blood supply ensures the optimum condition for muscle contraction (14). *Basti* (enema) is the best treatment for *vata vyadhis* (movement disorders). In the transrectal route; the rectum is enriched with blood and lymph supply where by drugs administered through enemas in the form of medicated oils can cross the rectal mucosa like any other lipid membrane and enter the general circulation. *Basti* may block neuromuscular transmission by binding to acceptor sites on motor or sympathetic nerve terminals, entering the nerve terminals, and inhibiting the release of acetylcholine (15)

In conclusion 21-60% of improvement was reported by 165 patients (81%) out of total 202 after the treatment.

## REFERENCES

- Patel J, Amal R, Patel MV, Gupta SN, Patel KB. A Non-randomized observational clinical study on Ayurvedic Management of Pakshaghata. *J Biol Sci Opinion* 3(5): 2015, p 230-234
- Walker BR, Colledge NR, Ralston SH, Penman ID(Editors): Davidson's Principles and Practice of Medicine. China, Elsevier Limited, 2014, 22<sup>nd</sup> edition, p 1231-1247
- Papadakis MA, McPhee SJ(Editors). Current Medical Diagnosis and Treatment. USA; McGraw Hill Education. 2017, p 993
- Satish V, Ashvinikumar M, Lohith BA, Rajan A. Ayurvedic management of pakshaghata (right middle cerebral artery hemorrhagic infarct): A case report. *Int J Res Ayur Pharm*: 2016, Suppl 3, p 126-129
- Moreshwar KA, Shastri NK (Editors): *Astanga Hridaya of Vagbhata*, Nidana Sthana. Varanasi; Chaukhamba Orientalia, 2012, p 444
- Shastri A (Editor). *Sushrutsamhita of Sushrut*, Nidanasthana. Delhi; Chaukhambha publications, 2002, 13th edition, p 300
- Srikantamurthy KR (Editor): *Bhavaprakasha by Bhavmishra*, Madhyama Khanda. Varanasi; Krishnadac academy, 2000, 1<sup>st</sup> edition, p 227
- Shastri K, Chaturvedi G (Editors): *Charaka Samhita of Agnivesha*, Chikitsasthana. Varanasi; Chaukhambha publications, 2001, p 788
- Dubey N, Pandey R, Kar AC. Critical analysis of etiology of pakshaghata (stroke). *J Ayu Holi Med* 3(3): 2015, p 37-40
- Sori A, Pervaze R, Prasad BS. An individualized treatment protocol development in the management of pakshaghata (acute stage of ischaemic stroke): A review. *Int J Res Ayur Pharm* 8(5): 2017, p 10-13
- Brewer L, Horgan F, Hickey A, Williams D. Stroke rehabilitation: recent advances and future therapies. *Q J Med* (106): 2013, p 11-25
- Byadgi PS, Pandey AK. A textbook of Kayachikitsa. New Delhi; Chaukhamba Publications. 2014, Vol 3
- Tiwari S, Singh S, Gupta S. Role of Brimhananasyain psychosomatic disorders. *Int J of Green Pharm* 12 (2): 2018
- Sori A, Pervaze R, Prasad BS. A prospective clinical observational study on protocol based Sushruta'savasthanusar management of Pakshaghata (Ischaemic stroke). In press 2018
- Kurubar AD, Munnoli BT, Vijaykumar D, Arbar A, Patil A. Role of matrabasti (enema) over abhyanga (massage) and sweda (sudation) in reducing spasticity in cerebral palsy with suddhabalataila- A randomized comparative clinical study. *Int J Ayur Pharma Research* 2(2): 2014, p 47-52