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REVIEW ARTICLE

ROLE OF AYURVEDA IN THE MANAGEMENT OF NEUROLOGICAL DISEASES WITH SPECIAL REFERENCE TO STROKE (PAKSHAGHATA) AS A GERIATRIC DISORDER

¹Dr. Sunita R. Paradkar, ²Dr. Swati Pardhi, ³Dr. L. D. Lanjewar, ⁴Dr. Sandip Vaidya and
^{*5}Dr. Danga S. K.

^{1,2,4}Dravyaguna Department, Bhausaheb Mulak Ayurved College, Nandanvan, Nagpur

³Rognidan Department, Bhausaheb Mulak Ayurved College, Nandanvan, Nagpur

⁵Kayachikitsa Department, Bhausaheb Mulak Ayurved College, Nandanvan, Nagpur

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ABSTRACT

Ageing is the natural degenerative last phase of human being. In old age Vata dosha remaining the dominant factor in carrying out various physiological activities if not taken care of by adopting in required life style and dietary habits then it induces fasten degenerative process especially in already immune compromised person. Neurological disorders need greater attention as the age advances. Many neurological disorders such as Dementia, neuromuscular disorders (Paralysis) affect the geriatric population. Stroke is medical emergency. It is also known as brain Attack. Sometimes referred to by the older term cerebrovascular accident (CVA) is the rapid loss of brain function due to disturbance in the blood supply to the brain. At age 80, brain blood flow decreases by 20-28% & this parallels a decline in a cerebral metabolic rate. In addition, increase in cerebro Vascular resistance with cerebral arteriosclerosis, vessel fibrosis & endothelial involution is seen with ageing. Stroke is a disease of middle aged & elderly individuals. In elderly the common cause of stroke is atherosclerosis (hardening of arteries). Plaque made of fat cholesterol, Calcium, & other substances builds up in the arteries. It is one of the third most common causes of death in the developed world after cancer & IHD.

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INTRODUCTION

Geriatrics is the branch of medicine concerned with the care & treatment of elderly. The word geriatric has also a close link with the Sanskrit word "Geeryadi" which means degenerated. In old age Vata remaining the dominant factor in carrying out various physiological activities if not taken care of by adopting in required life style and diet then it induces fasten degenerative process especially in already immune compromised person. Neurological disorders need greater attention as the age advances. Many neurological disorders such as Dementia, neuromuscular disorders (Paralysis) affect the geriatric population. Atrophy peripheral sensory neuronal less are also seen in old age. Marked Vascular Changes occur with ageing. At age 80, brain blood flow decreases by 20-28% & this parallels a decline in a cerebral metabolic rate. In addition increase in cerebro Vascular resistance with cerebral arteriosclerosis, vessel fibrosis & endothelial involution is seen

with ageing. Decrease in nerve conduction velocity, muscular functions are also seen in elderly individuals due to ageing. Stroke is a disease of middle aged & elderly individuals. It is one of the third most common causes of death in the developed world after cancer & IHD.

Modern view of Stroke

Stroke is medical emergency. It is also known as brain attack. Sometimes referred to by the older term cerebrovascular accident (CVA) is the rapid loss of brain function due to disturbance in the blood supply to the brain. This can be due to ischemia (lack of blood flow) caused by blockage (thrombosis, arterial embolism) or a hemorrhage (uncontrolled HTN). As a result the affected area of brain cannot function, which might result in an inability to move one or more limbs on one side of the body, inability to understand or formulate speech or an inability to see one side of the visual field. Motor & sensory functions are mostly affected. Without treatment cells in the brain quickly begin to die. The result can be serious disability or death. Hemiplegia due to middle cerebral arterial thrombo

*Corresponding author: Dr. Danga, S. K.

Kayachikitsa Department, Bhausaheb Mulak Ayurved College, Nandanvan, Nagpur

embolism is a common example. A completed stroke is when the neurological deficit has reached its maximum usually within 6 hours of onset.

What causes a stroke?

In elderly the common cause of stroke is atherosclerosis (hardening of arteries). Plaque made of fat cholesterol, Calcium, & other substances builds up in the arteries. Leaving less space for blood to flow. Atherosclerosis also makes it easier for a clot to form in a great vessels carotid & vertebral arteries.

Risk Factors

- Hypertension, Diabetes mellitus obesity, family history, smoking, hyperlipidaemia oral contraceptives, Alcohol, old age. TIA. Lack of physical exercise, a poor diet may increase the risk of stroke. Gender mostly male are more prone to stroke than female.
- Predisposing Causes-** Extra cranial atheroma, intracranial atheroma, Valvular heart disease, Low cerebral perfusion e.g. hypotension. Atrial Fibrillation.
- Miscellaneous:** Hyper viscosity e.g. Polycythaemia Arthritis, e.g. SLE, Trauma, Bleeding Disorder.

Treatment

According to Modern medicine

- Primary Prevention: Early Assessment of cause, thrombolytic, Risk factor control, Speech & language therapy physiotherapy.
- Secondary Prevention—with Antiplatelets Anti Coagulants, Statins etc.

Ayurvedic view about Stroke

According to Ayurveda Pakshaghata (Hemiplegia) has been discussed under Vatavyadhi as Vataj Nanatmaj Vyadhi. (Neurological Disorder) The term Pakshaghata, Pakshavadha & Ekang Vata have been used to describe hemiplegia in Ayurveda.

Pakshaghata : (Samprapti)

“Gruhitva Ardham Tanorvayu : Sira: Sanyurvishoshya Cha | Hatvaikam Maruta Paksham. Dakshinam Vamam. Eva. Va | Kuryatcheshta Nivruti hi rujam Vakstambha Eva Cha | Charak Chi. 28|5”

Pakshaghata is mainly caused by Vitiation of Vata causing dryness of sira & Snayu & loss of function of one half of body. It is mainly a Vata Vyadhi Causing Specially by Prana Vayu Dushti with Pitta, Kapha, Dosha's Anubandha. Acharya Charak observed that sira snayu Vishoshana leads to pakshaghata but Acharya Sushrut noted the involvement of Dhamani in the pathogenesis of pakshaghata. Chakrapani says that without understanding the Prakuti (Physiology) correct knowledge of Vikruti (Pathology) is not possible. The implications of sira, dhamani & strotas are very essential to

understand the pathogenesis of pakshaghata. A critical & careful study of Ayurvedic classics conforms that the structure like sira & dhamani convey Vascular structure of the body & Snayu convey nervous system of the body.

Type of Pakshaghata

- Vataj
- Pittanubandhi
- Kaphanubandhi.

Causes of Pakshaghata

Old age, Vatakar Ahar Vihar, Raktha Duishtikar aharvihara, Pittakar Ahar Vihara, Manodwega (stress).

Diagnosis

Stroke is diagnosed mainly through clinical examination. All other investigation help in determining the causes & sub type of stroke. e.g. CT Scan, MRI .Blood profile Arterio Graphy (Angiogram) Lipid profile, Doppler ECG. etc.

According to Ayurvedic Perspective

Ayurveda provides preventive, curative & rehabilitative measures for the management of stroke. Prevention is the best cure. Identification of risk factors & their treatment can prevent the occurrence of stroke. Ayurveda offers various antihypertensive drugs, anti cholesterolemic anti stress drugs for curative purpose or to rehabilitate the patients & to treat disability after stroke Ayurveda has Panchakarma treatment & massage therapy. Various nervine tonics & bulk promoting drugs are available for providing strength.

Preventive Aspects

Ayurveda offers life style regime (Ritucharya, Dinacharya) and Rasayan therapy as mentioned in Ayurvedic literature can help in promote health & mental peace. Yoga & meditation are both curative & preventive measures. Ayurveda offers various herbal formulations to treat the risk factor for stroke. Antihypertensive Drugs : Arjuna, Pushkarmoola, Prabhakar Vati, Hridyarnava Rasa, Arjunarista, Sarpagandha Vati Ashwagandharishta etc.

- Antihypercholesterolemic Drugs : Arogyavardhini Vati, Guggulip Vati, Triphala Churna, Kaishor Guggula, Trikatu Churna.
- Drugs for the management of stress & Depression: Ashwagandha Curna, Brahmi Vati, Medhya Rasayana, Saraswata Curna etc.

“Swedanam Snehansayuktam Pakshaghate Virechanam|” Carak Ci. 28/97

According to Charaka Chikitsasutra is snehanam, Swedana & Sneh Virechan. According to Susruta essential Chikitsasutra is snehanam, swedan, mrudu shodhan, Vasti, Shirovasti. In general the treatment schedule consists of two main approaches 1) Shodhana through Panchakarma procedure & 2) Samana through Kashtashadhi, rasaoushadhi & Rasayan drugs along with Deepan Pachana drugs.

Role of Panchakarma

1. **Snehan:** It could be given internally and externally with various oil preparations, Internally used Oil are : Ksheerbala Tail, (V + P) Madhu Yashtyadi tail (V.P.K.) sudha Bala Tail. External application of oil for massage are - (abhyanga) e.g. Mahanarayan Taila, Bala Taila, Prasarini Taila, Mahamasha Tail, Nirgundi Taila, Panchaguna Taila etc. Massage therapy provide nutrition to muscles & prevent atrophy of muscles.
2. **Swedan:** Nadiswedam prepared by vatahar dravyas, shastikshali pindasweda.
3. **Virechana:** Sneha & Mrudu Virechana therapy is applied with Eranda Taila (V+Vk) Gandharv Haritaki., Ksheerbala Tail. etc. To counter the upward movement of vitiated Pranavat & to avoid vata Prakop Sneha Virechana is used. Sira, snayu are the upadhatu of Rakta. Pitta & Rakta dhatu have Ashrayashrayi Bhav hence chikitsa of Pitta is applied on Raktadhatu. So Virechana is beneficial for Pakshaghat. Taila or Bala Tail provide strength to neuromuscular system.
4. **Vasti:** Mainly 'Vasti' therapy, Niruha Vasti with Dasamula Kwath & Anuvasana Vasti with Mahanarayana Tail.
5. **Nasyam:** Though it is not mentioned in classics it is wide practice for its quick & long lasting results as it repair local damage & improve local circulation. e.g. Anu tailam (Only Vata) Ksheer bala Tail (V + P) etc. Shirodhara with mansyadi kwath & Shiro basti with Vatahara Tail are also helpful to regenerate the nerve damage.

Nervine Tonics in Ayurveda

Dasamula Kwatha, Shilajeet, Aswagandha Churna, Saraswata Churna, Brahmi Ghrita, Shatavari, Jatamansi, Vaca are **Kashthaushadhi** which are very useful in the management of stroke by giving nutrition to the blood vessels & nerves.

Some of Important **Rasaushadhi's** are used in the management of stroke.

1. **Yogendra Rasa:** Used in Chronic stages of pakshaghat, improve limb movement & speech.
2. **Ekangveer Rasa:** Useful in Kaphanubandhi Pakshaghat used in pakshaghat due to thrombosis with normotension & bell's palsy.
3. **Brihat Vata Chintamani Rasa:** Vata – Pittanubandhi Pakshaghat, Initial stage of pakshaghat, mild to moderate hypertension. Upper motor Lesions. Rigid & spastic condition.
4. **Mahayograj Guggul:** Used in pakshaghat due to thrombosis in Kaphanubandhi types.

Summing up all the review of literature about Pakshaghat it is seen that the samprapti is because of

- 1) Vata Vriddhi (Hypertension etc)
- 2) Avarodha (Atherosclerotic Changes)
- 3) Dhatukshaya (Paralysis of muscles Tendons, ligaments)

Mode of Action

Almost all the ingredients of Rasa-Aushadhi & Kashthaushadhi posses the qualities of—

Deepan, Pachana – (Promotes fat metabolism)

Lekhana – Prevent sclerotic changes & improve Vasodilatation to improve local circulation.

Medhya – Promotes cerebral circulation & nutrition.

Rasayana – Improve quality of life, promotes growth of saptadhatu. It increases immunity & rejuvenate body tissue.

Balya - Tone up neuromuscular integrity, relieves spasticity. Improves muscle tone & movement.

All these qualities & properties of above drugs play a major & significant role in achieving the criteria "Samprapti Bhedana" There by facilitating prevention of complication, early recovery from the illness & also improve quality of life.

Conclusion

Panchakarma therapy is beneficial in improvements the quality of life for the hemiplegic patients as it is one kind of rejuvenating therapy to improve the muscle power as well a physical activity. Cellular nutrition and its vitality as a whole are highly conducive to the healthiness of the body by the way of Panchkarma. Also there is limitation in modern therapy in geriatric disorders. Ayurveda play an important role to prevent & cured the Geriatric Disorders.

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