

**ROLE OF VISHTINDUK VATI IN THE MANAGEMENT OF
SROTORODHA JANYA VATVYADHI WITH REFERENCE TO
ISCHEMIC ARTERIOGENIC STROKE IN CHILDREN - A REVIEW****Dr. Ashwini Ashokrao Patil*¹ and Dr. Shivkumar Surykant Martule²**

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ABSTRACT

Stroke is an important cause of acquired brain injury in newborn and children. Incidence of stroke in pediatric is 5 in 100000 children per year. Acute stroke is neurogenic emergency, however delays in recognition are common and delayed treatment worsens outcomes. The common focal presentation is hemiparesis, acute visual, speech, sensory or balance and motor neuron deficit. In Ayurveda stroke symptoms can be studied under strotorodh janya vat vyadhi and its symptoms resembles Pakshaghata. Role of Vishtinduk vati in the management of motor neuron deficits caused by ischemic arteriopathy in brain (stroke) can be effective by removing strotorodh and pacifying vat dosha.

INTRODUCTION

Stroke is an important cause of acquired brain injury in newborn and children. Incidence of stroke in pediatric is 5 in 100000 children per year. Acute stroke is neurogenic emergency, however delays in recognition are common and delayed treatment worsens outcomes. The common focal presentation is hemiparesis, acute visual, speech, sensory or balance and motor neuron deficit.^[1]

There are main three etiological considerations-

- 1) Ischemic arteriopathy stroke.
- 2) Cardio-embolic stroke.

3) Hematologic disorders.

We found pathophysiology of stroke in scattered manner in Ayurveda texts but we can study ischemic arteriopathy stroke causing motor neuron deficit under *avarodhjanya vat vyadhi* that resembles *Pakshaghata*.^[2] In this disease there is vitiation of tridosha with vat- kaph dosha dominance that causes obstruction in *raktavaha* and *mansvaha* srotasa predominantly leading to *kriyahani* (motor neuron deficit) of hand and feet etc.

Role of *vishtinduk vati* in the management of motor neuron deficits caused by ischemic arteriopathy in brain (stroke) can be effective by removing *strotorodh* and pacifies vat dosha. *Vishtinduk vati* remove *strotorodh* by its *ushna*, *tikshna* guna and acts as *balya* to vat vahi strotas, *sira* and *dhamani*. Active principles of *vishtinduk vati* stimulates excitatory nerve impulses to muscle. It helps to improve muscle tone which is lost in ischemic arteriopathic stroke.

AIMS AND OBJECTIVES

- 1) To demonstrate the *samprapti* of pediatric stroke by Ayurveda.
- 2) To find the efficacy of *vishtinduk vati* in the management of pediatric stroke caused by ischemic arteriopathy.

MATERIALS AND METHODS

Data and information collected from different personal practicing in different parts of country, references from different kind of journals, websites, text book of pediatrics, *ayurved samhitas* etc.

Diagnosis and Etiology of pediatric stroke

There are main three etiological considerations:

- 1) Arteropathy- disorder of cerebral artery is a main leading cause of stroke in 50% children. Mostly affecting school age children and unilateral irregular stenosis of middle cerebral artery seen here.

Few common risk factors of arteriopathy are post varicella and other viruses' angiopathy, systemic vasculitis, arterial infection meningitis.

- 2) Cardio embolic stroke – affect almost 25% children and is associated with catheterization, surgical repair or ventricular assistive device use. Common risk factors include complex

congenital heart disease, acquired conditions like arrhythmia; cardiomyopathy and infective endocarditis. Hence all children susceptible of AIS require detail cardiac examination.

- 3) Hematological disorders like sickle cell anemia, increases risk of AIS to 400 folds. Iron deficiency anemia increases risk.

Treatment of pediatric stroke by modern science

Antithrombotic therapy with anticoagulants like low molecular weight heparin, supportive measures to prevent progressive ischemic brain injury including management of seizures, ventilation etc.^[3]

Probable Samprapti of Arterial ischemic stroke (IAS)

हेतु सेवन → वातपित्तकफ दोष दुष्टी → दुष्टीत दोष रक्तवह ,मांसवह,
मज्जावह स्रोतसा मध्ये स्थान् संश्रय → कफ दोषाने रक्तादि स्रोतरोध
→ अवरोधजन्य वात व्याधि (kriyahani (motor neuron deficit) of hand, feet etc.)

Role of vishtinduk vati to break the samprapti of IAS

The main contain of Vishtinduk vati is Kuchala(*strychnus nux vomica*) dravya. We can review this dravya through ayurvedic approach for break the pathogenesis of IAS.

Kuchala/ kupilu^[4]

Gana - Amradivarga.	Family-Karaskara kula (leguminocae)
Latin name - <i>strychnos nux vomica</i> .	
Other Names - vishtinduka, kupilu, etc.	Morphological - Tree. Useful material -
Seed pulp	
Ras - tikta katu	Vipak - katu
Virya - ushna.	Guna - laghu, tikshna
Action - kaphvatghna.	Active principles - Brucin, brucin N oxide
Basically all diseases in children are kaphdosh dominant so in IAS there is srotorodha of raktvah, mansvah, majjavah srotasa.	

मज्जावह स्रोतसदुष्टी हेतु-^[5]

उत्पेक्षादत्यभिष्यन्दादभिघातात् प्रपीडनात् । मज्जवाहिनि दुष्यन्ति विरुध्दानां च
सेवनात् ॥

Abhigata is apredominant cause of vitiation of majjavaha strotasa, which resembles accidental presentation of stroke in children.

मज्जावह स्रोतसदुष्टी लक्षणे-

रुक् पर्वणां भ्रमो मूर्च्छा दर्शनं तमसस्तथा । अरुषां स्थूलमूलानां पर्वजानां च
दर्शनम् ॥

vishtinduk vati act on IAS by,

- 1) Pacify kapha and vata dosha by its ushna, tikshna properties.
- 2) Remove obstruction (srotorodh) cause by kapha dosha by its ushna, tikshna properties.
- 3) Act as stimulant to vatvahini nadi(brain) and strengthen it.
- 4) Strychnous nux vomica has two important alkaloids which are- Brucin and brucin n oxide. These alkaloids are likely to increase glutamic acid level in brain. glutamic acid excites muscle contractions by stimulating of excitatory nerve impulses.^[6]

DISCUSSION

In modern science there is limited role of allopathic treatment on IAS. So there is much scope to develop proper line of treatment to IAS in Ayurveda.

Vishtinduk vati improves muscular disability which seen in IAS. Hence there is need to carry out various type of studies over this topic.

CONCLUSION

Vishtinduk vati increases muscle tone, increases motor neuron function which get lost in IAS. So Vishtinduk vati is effective in IAS by improving muscular activity.

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