

**Case Report** 

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# A CASE STUDY ON SYRINGOHYDROMELIA WITH AYRVEDIC APPROACH

V. Bharathi<sup>1</sup>, S. Ramalingeswara Rao<sup>2</sup>

<sup>1</sup>PG Scholar; <sup>2</sup>HOD; PG Department of Kayachikitsa, Dr B.R.K.R.G.A.C., Hyderabad, Telangana, India

Email: <u>bharathivtkr430@gmail.com</u>

### ABSTRACT

Syringomyelia is a developmental cavity of the cervical cord that may enlarge and produce progressive myelopathy or may remain asymptomatic. Symptoms begin insidiously in adolescence or early adulthood, progress irregularly, and may undergo spontaneous arrest for several years. Many young patients acquire a cervical-thoracic scoliosis. More than half of all cases are associated with Chiari type 1 malformations in which the cerebellar tonsils protrude through the foramen magnum and into the cervical spinal canal. The pathophysiology of syrinx expansion is controversial, but some interference with the normal flow of CSF seems likely, perhaps by the Chiari malformation. Acquired cavitations of the cord in areas of necrosis are also termed syrinx cavities; these follow trauma, myelitis, chronic arachnoiditis due to tuberculosis and other etiologies<sup>1</sup>. According to ayurveda it may be considered as *Majja pradoshaja vikara* as the entire nervous system is said to be involved by *majja*. Diseases manifested under majja pradoshaja vikaras include bhrama, murcha, tamodarsana, parva ruk. Majja and Vata are inter-dependent. The symptoms mentioned in Syringomyelia are equal to vata prakopa though the disease is related to *majja dhatu. Vatahara chikitsa, brimhana chikitsa and also karshana chikitsa* should be done to decrease the size of syrinx.

Keywords: Syringomyelia, majja pradoshaja vikara, vatahara chikitsa, brimhana chikitsa

#### INTRODUCTION

The presentation is a central cord syndrome consisting of a regional dissociated sensory loss (loss of pain and temperature sensation with sparing of touch and vibration) and is flexic weakness in the upper limbs. The sensory deficit has a distribution that is "suspended" over the nape of the neck, shoulders, and upper arms (cape distribution) or in the hands. Most cases begin asymmetrically with unilateral sensory loss in the hands that leads to injuries and burns that are not appreciated by the patient. Muscle

wasting in the lower neck, shoulders, arms, and hands with asymmetric or absent reflexes in the arms reflects expansion of the cavity in the grey matter of the cord. As the cavity enlarges and compresses the long tracts, spasticity and weakness of the legs, bladder and bowel dysfunction, and Horner's syndrome appear. Some patients develop facial numbness and sensory loss from damage to the descending tract of the trigeminal nerve (C2 level or above). In cases with Chiari malformations, cough-induced headache and neck, arm, or facial pain may be reported. Extension of the syrinx into the medulla, syringobulbia causes palatal or vocal cord paralysis, dysarthria, horizontal or vertical nystagmus, episodic dizziness or vertigo, and tongue weakness with atrophy. MRI accurately identifies developmental and acquired syrinx cavities and their associated spinal cord enlargement. Images of the brain and the entire spinal cord should be obtained to delineate the full longitudinal extent of the syrinx, assess posterior fossa structures for the Chiari malformation, and determine whether hydrocephalus is present.

Treatment of syringomyelia is generally unsatisfactory. The Chiari tonsillar herniation may be decompressed, generally by sub occipital craniectomy, upper cervical laminectomy, and placement of a dural graft. Fourth ventricular outflow is reestablished by this procedure. If the syrinx cavity is large, some surgeons recommend direct decompression or drainage by one of a number of methods, but the added benefit of this procedure is uncertain, and complications are common. With Chiari malformations, shunting of hydrocephalus generally precedes any attempt to correct the syrinx. Surgery may stabilize the neurologic deficit, and some patients improve. Patients with few symptoms and signs from the syrinx do not require surgery and are followed by serial clinical and imaging examinations. Syrinx cavities secondary to trauma or infection, if symptomatic, are treated with a decompression and drainage procedure in which a small shunt is inserted between the cavity and subarachnoid space; alternatively, the cavity can be fenestrated. Cases due to intramedullary spinal cord tumor are generally managed by resection of the tumor<sup>1</sup>.

**Nirukti:** *Majja* is considered to be the *Sara* of the Asthi dhatu which is equivalent to *sara of vriksha* according to *Vachaspatyam*, and according to *Shabda kalpadruma Majja* is the sneha bhaga inside the *Asthi* 

Panchabhoutika tatwa of Majja dhatu according to Dalhana, is Ap Mahabhuta. Majja dhatu circulates

throughout the body having gunas like *sneha*, *bala*<sup>2</sup>, *sukra pushti, and poorana of asthi*<sup>3</sup>.

Majjavaha Sroto mulas are Asthi and Sandhi, so functional activity of Majja will be more in Asthi and Sandhi. Concept of Majjavaha Srotas has been laid down by Charaka, He says Majja is present in Sthula Asthi and Sarakta Meda is present in Anu asthi and Udara.

Majja helps in maintenance of the shape of Asthi along with Vata. Vata and Majja,two different entities having the opposite qualities are present inside the Asthi (Vata takes Ashraya in Asthi and Majja is formed inside the Asthi). They both complement each other inside the Asthi. Khara guna of Vata and Snigdha guna of Majja helps in retaining the hard texture of Asthi as well as easy movement of entire body. This owes to the existence of Vata and Majja inside Asthi.

## **CASE REPORT**

A female patient aged about 27 years approached the Department of *Kayachikitsa*,

Dr. B.R.K.R. Govt Ayurvedic Hospital, complaining that she was unable to rise from bed suddenly after a night sleep.

## HISTORY OF PRESENT ILLNESS

The patient is suffering from neck pain which is intermittent associated with stiffness, numbness and general weakness. She was unable to lift weights such as lifting a bucket of water etc., and was also unable to stand even for 10 minutes. She approached a local practitioner and took treatment for the above said symptoms for 6 months. But she got no relief. Pain is getting worse when on system work, and attaining mild relief on rest. One fine morning she was unable to rise from bed suddenly after a night sleep. She was taken to a local physician. Later she was advised to have an MRI Scan in which she was diagnosed Syringomyelia at NIMHANS, Bangalore with syrinx from C3-C7 level. There was no evidence of Tonsilar ectopia / Compromise of Foramen Magnum. CSF Flow study was normal. She was not advised any surgery. As the symptoms were persistent she approached Dr. B.R.K.R. Govt. Ayurvedic Hospital on 25/7/2017 (with OPD Regd. No. 20540) and wished to start Ayurvedic treatment.

## PAST HISTORY

General weakness and feeling strenuous on long standing. No H/o Hypertension, DM, or Trauma.

## GENERAL EXAMINATION

On general examination Vitals were within normal limit (B.P.- 110/80 mm of Hg, P.R.-74/min Regular, R.R.- 18/min, Temp.- 98.4° F), Pallor- absent, Ic-terus- absent, Cyanosis- absent, clubbing- absent, lymph node not enlarged, oedema- absent.

Haematological reports reveals that Hb% - 14.3 gm%, ESR-8 mm/hr, TLC, DLC and other haematological parameters were normal, renal parameters and blood sugar were also within normal limits.

MRI of cervical spine revealed expansion of spinal cord by a syrinx extending from C3 to C7 level measuring about size 5.7\*0.9\*1.0 cms size with normal CSF Flow Study.

### TREATMENT

The patient was administered certain combination of the drugs as mentioned below and changed accordingly to symptoms. Medicines were given continuously. Prescription on 25/7/17 included

1) Mahavata vidhwamsini ras <sup>4</sup> 7.5gms	
+ Abhraka bhasma <sup>5</sup> 10gms	
+	
Laghusutasekhara ras <sup>6</sup> 20gms +	pounded them well and divided into 60
-	equal parts and administered BD with honey
Guduchi satva <sup>7</sup> 20gms	
+ Pippali churna <sup>8</sup> 30gms	

All the above drugs are pounded to powder and 60 equal parts are made and administered in 1.5gms bd dose

2) *Rasrajeshwar ras<sup>9</sup>*- (Dootpapeshwar) 338mg 1tab BD with water A/F

3) *Sahacharadi kashayam* tablet- 250 mg 1tab BD with warm water A/F

4) Maharasnadi kwatha<sup>10</sup> -15ml BD with equal water A/F

5) Trayodasanga guggulu<sup>11</sup> -2 gms BD with water A/F

6) *Ksheerabala capscules* – 1cap BD with luke warm water A/F

7) Balaswagandha taila $m^{12}$  – for local abhyanga.

Patient felt a little comfort with the medication. Later patient was advised to undergo KNGS -

*Kukktanda Nimba Ghrita Saidhava for sweda* and *Matra vasti with Dhanvantari tailam*<sup>13</sup> 75ml for 7 days from 21/8/2017.

The patient was more comfortable with KNGS *and Matra vasti.* 

Later along with all these medications *Hira* bhasma<sup>14</sup> 500mg is added to the above said churna, and *Brahmi vati<sup>15</sup> 375mg 1 tab BD is administered* for 30 days.

## RESULT

The patient is feeling comfortable while standing even for half an hour, not presenting pain while lifting moderate weight objects. Stiffness, numbness, pain in the neck region and general weakness subsided. There is symptomatic relief even though there is no treatment for Syringomyelia. After treatment the size of the syrinx is 5.1\*0.3\*1.0cms which improved from 5.7\*0.9\*1.0 cms

## DISCUSSION

The main aim of the treatment is to bring back the equilibrium in deranged or disturbed doshas and dhatus. *Mahavata vidhwamsini Ras* decreases neuro irritation, tingling and numbness and is supported by *Laghusuta sekhara ras and Guduchi satwa* which act as immune-modulators. *Abhraka bhasma and pippali churna has rasayana* property.

*Rasaraja ras* reduces neuro irritation, numbness, pain, and acts on neurological disorders in cervical region and is administered with *Maharasnadi kwath*. *Trayodasanga guggulu* has *brimhana karma* and increases pain threshold. Sahacharadi kashayam works as lekhana drug and relieves the stiffness of joints.

*Ksheerabala tailam* is helpful in cartilage formation and strengthening muscles and ligaments. *Balaswagandhadi tailam* is used to improve nerve strength. *Vajra bhasma* is the best *lekhana* drug and beneficial in neurological disorders, acts as anti-inflammatory and immune-modulatory drug. It has *lekhana karma* by means of which the syrinx may get reduction in size. It also acts as metabolic enhancer.

*Matra vasti has brimhana* action. KNGS strengthens local muscles and ligaments there by reducing the compressive pressure on the spinal nerve.

## CONCLUSION

Based on the above findings we can support that the treatment showed positive effect on clinical findings and symptomatic relief obtained. Any treatment is deemed to be ayurvedic if it is based on the principles of *tridoshas*. Basing on interpretation of the *doshas* and *lakshanas* treatment for the disease can be planned.

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