

**AN AYURVEDIC APPROACH TO A CASE OF MOVEMENT DISORDER**

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**ABSTRACT**

Chorea is a hyperkinetic movement disorder characterised by excessive spontaneous that are irregularly timed, randomly distributed, quick, jerky, abrupt movements that involving distal or proximal muscle group<sup>1</sup>. Chorea may be correlated to *Snayugatavata* coming under the broad classification of *vatavyadhi* based on clinical features. Here is the case of **20-year-old** female presenting with involuntary movements. This particular study explains about how an *Ayurveda* based approach and treatment starting from diagnosis improved the quality of life of the patient from poor family who was not able to afford costly diagnosis and treatment otherwise. Here we tried to assess the case based on the *vikalpasamprapthi* and major involvement of *vatadosha* was seen. Thus our focus on the diagnosis of the condition was under the broad spectrum of *vatavyadhi*. This presentation is intended to explain an approach based on *Ayurvedic* principles of diagnosis and management. Following the exclusion method of differential diagnosis, here reached to a probable diagnosis as *Snayugatavata*.

**Keywords:** *chorea, snayugatavata, vatavyadhi, vikalpasamprapthi*

**INTRODUCTION**

A rare case of 20-year-old female with involuntary movements (Chorea tic), approached and was diagnosed as *Snayugathavata* and treated accordingly. Patient showed marked improvement in quality of life. This case is to understand how to approach such cases on **OPD and IPD** level.

**Case study**

A female patient aged 20 year belonging to lower middle class of Hindu religion, unmarried with an education of 7<sup>th</sup> class presenting with

✓ Generalized involuntary movements since 1 year.

- ✓ Similar complaints since 15 days
- ✓ Associated with lip smacking,
- ✓ Pain over right lateral aspect of neck
- ✓ Nausea, reduced appetite, regurgitation of both liquid and solid food, constipated stools (once in 3 days) and reduced urine output since 15 days.

Patient was apparently normal 1 year back, when patient suddenly developed generalized involuntary movement for which taken to physician and diagnosed as hyperkinetic movement disorder and was on medication since 1 year before getting admitted at SKAMC Bangalore. 15 days before the admission, in the morning, she suddenly developed severe pain over right

lateral aspect of neck followed by generalized irregular involuntary movements which was dominant over bilateral upper limb, trunk and head, associated with lip smacking unsteadiness and nausea.

There was no loss of consciousness, frothy salivation, giddiness, vomiting or headache. Attack used to subside over a day and used to recur on alternate days with increased severity. Along with these complaints she had difficulty in swallowing food (regurgitation of solid and liquid food), reduced appetite, decreased frequency of urination and constipation. On the day of admission in SKAMC while brushing teeth she suddenly developed neck pain followed by involuntary movements and she fell down due to unsteadiness. At 10.00am they approached **our hospital** for further management. Consciousness was preserved, no bowel and bladder incontinence during admission of patient.

Her appetite was reduced and decreased urine output (once /day), hard constipated stools (once in 3 days) with sound sleep (No involuntary movements while sleeping) since 15 days.

There was no h/o trauma, surgery, rheumatic fever, diabetes mellitus, dyslipidemia. Her mother's pregnancy was uneventful and full term delivery from home. She had delay in developmental milestones such as- started walking at the age of 8, slow unsteady walking, stooping forwards and dysarthria since childhood.

Mild mental disabilities- such as poor in school and academic work, difficulty in writing and reading, needs assistance for self-care such as eating, washing and bathing. She attained her menarche at the age of 12, secondary amenorrhea since then (8 years). Her parents had consanguineous marriage and having 6 siblings. No one in the family said to have similar

complaints. She is on Tab sodium valproate 200mg once daily since 1 year.

### **Conclusion based on clinical examination**

Lean built, under nourished, pallor, and with coated tongue oriented to time place and person and intact memory, thoughts and perception.

### **During the active phase**

Patient presented with altered appearance, behavior, and speech disturbances.

Closure of **bilateral** eyes was not possible > 5 seconds along with difficulty in performing blowing of cheek.

Complete protrusion of tongue was not possible which was popping in and out rapidly along with involuntary movements of tongue.

Fast non rhythmic choric type of movement which was increasing with motor activity presented in **bilateral** upper limb, head, trunk and less involvement of lower limb **with** good muscle strength and poor palmar and pincer grip.

### **Knee jerk was exaggerated and plantar reflex was dorsiflexion.**

The analysis of case started in detail with the help of *dashavidhapareeksha, amshaamshakalpana* of *doshadhathu* involvement and *nidanapanchakas*. The conclusion was **is Vatavidhi, kapha, pithakshaya** and *dhathukshaya* along with *vaikrutha* in *prana, udana, vyana, samana, apanavata karma, pachaka, sadhaka, alochakapitha vaikrutha karma, avalambaka, tharpaka, kaphavikrutha karma* **is** was present.

### **Samprapti**

*Beejadushti* and *madhuraravivahara* lead to delayed developments of sensory and motor property. *Shareerika* and *manasikandana* does further *vataprakopa* lead to *tokarshya, mamsashosha, shakrutgraha, indriyabramsha, arthavakshaya*. These *vikaras* further aggravating *vata* lead to

*udavartha*. On other side aggravation *vata* vitiated *Snayu*, *sira*, *kandara* lead to *shoola*, *aakshepaka*, *kampa*.

We came to a probable diagnosis of *Snayugatavata*.

### Samprapthighataka

Dosha

Vatapradhanatridosha

Dooshy -mamsa, meda, majja, sirasnayu

Agni -Jataragni, dhatvagni

Ama - Samavatha

Srothas -medovahamajjavaha

Srothodushtiprakara –

### Sanga, vimargagamana

Udbavasthana -pakwashaya

Vyakthasthana - sarvashareera

Adhishtana - sirasnayukandara

Marga - Madhyama

Sadhyasadhyatha - Asadhya

### Previous investigational reports

Report of MRI on 18/6/2014: MRI of the brain shows no definite abnormality

USG abdomen on 18/6/2014: Features suggestive of cystitis

Radiography of chest on 14/7/2014: Normal chest x-ray

Haematological test report on 18/6/2014

Neutrophils -77%

Lymphocytes-14.3%

Ceruloplasmin serum-0.252

### Differential diagnosis

For understanding the disease well, following differential diagnosis was considered.

*Phakka roga*<sup>2</sup>, *Skandapasmara*,<sup>3</sup> *Vepathu*<sup>4</sup>, *Antharayama*<sup>5</sup>, *Akshepaka*<sup>6</sup>, *Thandavaroga*<sup>7</sup>, *snayugatavata*<sup>8</sup>

As per **modern science**-Sydenham's chorea, Wilson's disease, Hyperthyroidism, ALS, Dystonia, Protein energy malnutrition, Global delay of development, Choreaoid cerebral palsy, Choreaoid athetosis, Huntington's chorea<sup>8</sup>.

### Probable diagnosis

*Snayugatavata*- *akshepaka*, *antharayama*.

Choreaoid athetosis

Huntington's chorea

### Treatment Given

- On the day of admission started treatment **with** *Shirothalam* with *Bramithaila+amlakichurna+jatamamsi churna* for 7 days.
- 2<sup>nd</sup> day *Sadhyavirechana* with 30ml *gandarvahastyadithailam*+1/2 glass of milk **in** empty stomach.
- Started *sarvanga alepa chikitsa* with *teekshana lepa* on the 3<sup>rd</sup> day of admission for 5 days.
- By the completion of 7 days of treatment in the hospital patient started feeling better. Choric movements reduced 50%, athetoid movements was present, neck pain reduced to 60%, on VAS-5/10. Forward stooping while walking, standing was persistent. Reduced appetite, not passing bowel motions regularly, and micturition once daily were persisting.
- On 8<sup>th</sup> day administered *Virechana* with *trivrut avaleha*-30gm with *triphala kashaya* 100ml as *anupana* at 9.00am followed by discharge.

• **Condition on discharge**- Patient had 15 *vegas* of *virechana*

No involuntary movements

No neck pain

Appetite was reduced, micturition was once daily.

Advised review on 11/8/15

Discharge medicines-

- *Mahapaishachikaghruta*-3tsp-0-3tsp(before food)
- *Saraswatharishtha*- 3tsp-0-3tsp +6tsp water(before food)
- Cap sagarlic 1-0-1 before food.

On 13/8/15, patient approached opd for follow up.

Condition of the patient got better. No recurrence of involuntary movements. Her

appetite got improved, and getting complete bowel motion regularly once daily, micturition was 4-5 times /day

- Adviced *tila* (sesame) in daily diet.

- Cap sagarlic 1-0-1 before food
- *Mahapaishachikaghrta* 3tsp-0-3tsp for 1 month.

**Assessment criteria<sup>9</sup>**

Symptom	Gradings
<b>Handling utensils</b>	0 – normal 1 -minimally impaired (difficulty with these tasks, but no help needed) 2 - mildly impaired (occasional help needed) 3 - moderately impaired (frequent help needed) 4 - severely impaired (needs to be fed)
<b>Hygiene</b>	0 – normal 1 -minimally impaired (difficulty with hygiene tasks, but no help needed) 2 - mildly impaired (occasional help needed) 3 - moderately impaired (frequent help needed) 4 - severely impaired (completely dependent)
<b>. Dressing</b>	0 – normal 1 -minimally impaired (difficulty with dressing, but no help needed) 2 - mildly impaired (occasional help needed) 3 - moderately impaired (frequent help needed) 4 - severely impaired (completely dependent)
<b>Walking</b>	0 – normal 1 - minimally impaired (walks with difficulty, but does not run into objects) 2 - mildly impaired (walks with difficulty, running into objects) 3 - moderately impaired (walks only with assistance) 4 - severely impaired (chorea paralytica; cannot walk at all, even with assistance)
<b>Involuntary movement</b>	0 – absent 1 - minimal (action chorea, or intermittent rest chorea) 2 - mild (continuous rest chorea, but without functional impairment) 3 - moderate (continuous rest chorea with partial functional impairment) 4 - severe (continuous rest chorea with complete functional impairment)
<b>Tongue protrusion</b>	0 -can hold tongue protruded for more than 1 minute 1 - can hold tongue protruded for more than 30 seconds 2 - can hold tongue protruded for more than 10 seconds 3 - can hold tongue protruded for less than 10 seconds 4 - cannot protrude tongue

<b>Bowel movements</b>	0- Once per day regular, without assistance with complete evacuation 1- Once in 2 days without assistance with incomplete evacuation 2- 2 times /week, with incomplete evacuation 3- Less than once per week with assistance, incomplete evacuation 4- Less than once per week with digital assistance or enema.
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Symptoms	Before treatment	After treatment
Handling utensils	3	2
Hygiene	3	2
Dressing	3	1
Walking	3	1
Involuntary movement	3	0
Tongue protrusion	3	0
Bowel movements	2	0

## DISCUSSION

Chorea may affect any part of the body but is more common in the proximal limbs, neck, trunk, and facial muscles. It may be exacerbated by voluntary action, stress, and emotion. Chorea has many causes. The most common causes of chorea in childhood include cerebral palsy and medication-induced and Sydenham's chorea. Choreiform movements in cerebral palsy often begin in the third to fifth year of life and may progress throughout adolescence. Huntington's disease in childhood usually does not present with chorea but rather with intellectual and behaviour changes, myoclonus, dystonia, and parkinsonian features. Choreiform cerebral palsy may be confused with benign hereditary chorea, an autosomal dominant disorder that may begin in infancy or early childhood and is associated with normal intellect<sup>10</sup>.

Based on the *vikalpasamprapti* concluded under *vatavyadhi*, probable diagnosis is *snayugatavata*. Since the patient from poor economic status, not willing to give lab investigations we couldn't do the con-

firmary modern diagnosis. By considering the presenting complaints, the probable diagnosis is chorea a movement disorder. Here in this case by considering the *saamavastha* and *avarana of vata*, the initial line of treatment **we have adopted was Agnilepa** which contains *tulasi, agnimantha, nirgundi, haridra, lashuna, maricha, lavanga, sarshapa* acts as *aamapachana* and *srothoshodhana*. By considering both *vatavrudhi* and ***udavarttha***, started with *thalam* and *sadhyovirechanam* to pacify the increased *vata*, **for agnideepthi**, and *mala shodhana*. To strengthen the body and improve *budhismruthivak* prescribed *mahpaishachikaghrutha* and *saraswatharishta*. To maintain the **patency and prevention of srothas and to keep apana vayu in normalcy** *lashuna* in the form of Sagarlic capsule **has been selected. Our next concentration is on her arthava pravrutthi, we have put her on pithavrudhikara ahara.** Since *vata* was very much aggravated general principle of *vatavyadhichikitsa* was followed and treated by looking into *doshadooshyain-*



volvement. **Thus** started observing the reduction in involuntary movements and able to improve the quality of life of the patient.

**Vikaaraanam akushalo na jihriyaath kadaachana**

**Na hi sarvavikaaranaam naamato asthi druvaa sthithi<sup>11</sup>:**

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