



AYURVEDIC MANAGEMENT OF TANDAVA ROGA W.S.R TO HUNTINGTON'S CHOREA

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ABSTRACT

Huntington's disease is also known as Huntington's Chorea. It is inherited neurodegenerative disorder which impaired behavioural and cognitive function. There is also a lack of coordination and unsteady gait. Chorea is the most common and hyperkinetic, hyperactivity movement disorder with the involvement of upper limb, lower limb, face and trunk. Untreatable, Progressive Chorea condition further known as Huntington's disease. It can be defined as involuntary, explosive, and jerking movement of bodily activities. These activities look like a dancing movement. Common cause of this disorder is known to be inheritance. Other causes include complications during labour and premature birth. As per Ayurvedic literature Huntington's disease can be understood with the reference of 'Tandav Rog' or 'Tandav vata'. Tandava means 'Nriyam' dancing with violent gesture like Lord Shiva. There is an involvement of Vata dosha in Tandava Rog explained by Acharya. Purpose: The case study focuses on the management of patient with Ayurvedic approach. **Materials and Methods:** A Single case study. In this case study a male patient came to OPD and was diagnosed for Tandava Vata. He was given management like Shirobasti, Sarvanga Abhyanga, Sarvanga Shashtika Shali Pinda Swedana and Basti for 28 days along with some oral medications. The patient showed marked improvement in his symptoms. Qualitative data was obtained from the inpatient department of Kaumarbhritya, Government Ayurved Hospital, Nagpur. Subject was assessed on the basis of developmental milestone such as fine motor, Gross motor, social skills and communication skills. Other parameters also checked such as investigations, Present history, past history and family history. Various types of Ayurvedic treatment modalities have been given to the subject such as panchakarma and internal medications. **Result and Conclusion:** The subjects have shown remarkable improvements in the sign and symptoms within one month of treatment. Ayurvedic therapeutic procedures are very well made use in the management of Tandava Rog. There is some evidence on the beneficial effect of Ayurvedic treatment on Chorea as shown in our case. Therefore, ayurvedic approach should be considered as a treatment option in patients with severe chorea that is Tandava Rog.

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INTRODUCTION

Huntington's chorea is the disease which attacks areas of the brain that helps to control voluntary movements of body, as well as other areas.⁽¹⁾ Huntington's Chorea is a rare, inherited disease that causes the progressive degeneration of nerve cells in the brain.⁽²⁾ It Problems Problems with motor skills, including coordination and gait, mood, and mental abilities Person suffering from Chorea develops uncontrollable dance-like movements chorea and abnormal body postures, as well as problems with behavior, emotion, thinking, and personality.⁽³⁾ Other symptoms include general lack of coordination and an unsteady gait followed by physical disability which gradually worsen until coordinated movement becomes difficult and the person is unable to talk. Huntington's disease develops when proteins destroy neurons (brain cells).⁽⁴⁾ First, they usually attack the basal ganglia, an area in the brain that oversees the body movements you control. The disease also impacts the brain's cortex (surface of

the brain). This part of the brain helps with thinking, decision-making and memory. Symptoms usually begin between 30 and 50 years of age but can start at any age. About eight percent of cases start before the age of 20 years, and are known as juvenile.⁽⁵⁾ up to 10% of cases are due to a new mutation. The prevalence rate of disease according to studies from 1985 to 2022 are 3.92 cases per 100,000.⁽⁶⁾ A preliminary diagnosis of Huntington's disease is based primarily on signs and symptoms, a general physical exam, a review of family medical history, and neurological and psychiatric examinations.

The neurological examination includes:

- **Motor symptoms**, such as reflexes, muscle strength and balance
- **Sensory symptoms**, including sense of touch, vision and hearing
- **Psychiatric symptoms**, such as mood and mental status⁽⁷⁾

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The neurological standardized tests to check:

- Memory
- Reasoning
- Mental agility
- Language skills
- Spatial reasoning⁽⁸⁾

Psychiatric evaluation

It includes

- Emotional state
- Patterns of behaviors
- Quality of judgment
- Coping skills
- Signs of disordered thinking
- Evidence of substance abuse⁽⁹⁾

Brain-imaging and function tests

The imaging technologies may include MRI or CT scans that show detailed images of the brain. This test can confirm the diagnosis. It may also be valuable if there's no known family history of Huntington's disease or if no other family member's diagnosis was confirmed with a genetic test.

Medications that are commonly considered when treating chorea include dopamine antagonists, benzodiazepines, and glutamate antagonists. Dopamine antagonists (neuroleptics) are the most commonly considered agents in the management of chorea and psychosis in patients with HD, but few double-blind, placebo-controlled studies evaluating the efficacy and safety of these agents have been published. None of the typical neuroleptics have been found to be effective in reducing chorea. In a study of haloperidol in 10 patients, oral doses of 1.5–10.0 mg/day corresponded with at least a 30 % reduction in chorea compared with baseline. The quantity and quality of these efficacy data need to be taken into account when considering the risks of using typical neuroleptics, particularly tardive dyskinesia. Other potential adverse effects of the dopamine receptor blockers, can be particularly problematic in patients with HD, as they may not have the insight to recognize these problems or may wrongly attribute the symptoms to HD.

According to *Ayurveda*, Chorea compared with Tandava Roga or Tandava Vata⁽¹⁰⁾ in which persons bodily activities looks like *Tandava Nritya* performed by Lord *Shiva*.⁽¹¹⁾ *Tandava* is a form of *Nritya* (dance) Due to the similarities of clinical presentation, This Vata Vyadhi can be related to Huntington's disease or Huntington's chorea.⁽¹²⁾ All the disorders having chorea, involuntary movements are explained under the heading of vata vyadhi that is mentioned in Sharangdhara Samhita, a classical Ayurvedic text⁽¹³⁾

Motor Symptoms includes

- Angani chalayet or tremors or jerky movements in hands and legs
- Nrutyanniva chalati, which refers to the gait of a dancer or unstable gait⁽¹⁴⁾

Psychological Symptoms include

The secondary involvement of pitta dosha manifests mostly in the mental aspects of the disease.

- Bheebhatsa mukha or confusion and irritability
- Adheera or anxiety and phobia

- Insomnia or disturbed sleep and waking up frequently⁽¹⁵⁾

Symptoms Increase due to Vata Dosha

Jerky movements, Dystonia (involuntary muscle contractions), Abnormal eye movements, Impaired gait, Speech problems, Difficulty in swallowing, Lack of awareness, Irritability, Loss of previously learned skills, Insomnia, Fatigue and loss of energy⁽¹⁶⁾

Symptoms which Increase In Pitta Dosha

- Mania
- Bipolar disorder⁽¹⁷⁾

Overall, there is primary involvement of vata dosha increase, with secondary involvement of pitta dosha. The effect of pitta dosha abnormality is seen mostly in the mental aspects of the disease

Case Approach

A 6 year male patient was admitted on 15/5/2022, In Government Ayurved College, Nagpur having OPD No.4920 and IPD No.443, with complaints of involuntary movements of bilateral upper limb, lower limb neck and head since 3yrs. uncontrolled body movements, difficulty in maintaing balance while walking, difficulty in speech due to uncontrolled movements, difficulty in holding objects, swallowing, chewing, and hearing. Patient was absolutely normal upto age of 4year. Later in the month of February 2022 he suffered from high grade fever and admitted to hospital for 7 days. After two months of recovery he suddenly went into semiconscious state and started developing symptoms like jerking and dancing movements of bodily activity. Later he was diagnoses with Huntington,s Chorea by modern Neurologist and was kept on allopathy medicines (valparin 200mg,omnacortil 10mg, serenac 0.25mg) for 1 and half year. After taking allopathy medicines body became edematous and it disappeared after stopping medicines. Again He was kept into homeopathy treatment for 7months but to an unsatisfactory outcome. After several treatment he got admitted to *Balrog* IPD for *Ayurvedic* management.

General examination

General Appearance	Normal
Built	Poor
Nourishment	Poor
Pallor	present
Icterus	Absent
Clubbing	Not present
Lymph Node Swelling	Not present
Tongue	Mild coated
Tonsils	normal
Systemic Examination	
CNS	Consious, Oriented
CVS	S1, S2 normal
RS	AE = BE
Vitals	
Generalised condition	Normal
Temperature	97.1°F
Pulse Rate	90/min
Respiratory Rate	30/min

Investigation

Date: 15/06/2020	
Heamoglobin	11.6gm
TotalWBC count	12600/cumm
Heamatocrite	37%
P	35%
L	60%
Blood glucose (random)	107.90 mg/dl
Date: 29/07/2020	
T3	175 mg/dl
T4	9.61 ug/dl
TSH	2.66 IU/ml
CRP level	1.04 mg/L
2D echo	normal LV, RV function, no valvar lesion
MRI	No abnormality seen in brain parenchyma

Family History

1. Mother- Good generalized Condition
2. Father- Good Generalised Condition
3. Grandmother - Good Generalised Condition
4. Grandfather- Good Generalised Condition

Diagnosis

Tandava Vata/Roga

Management Protocol administered to Patient**External Treatment****Sarwang Snehan Swedan**

Snehan was done with-Mash Bala Tai l+ Ashwagandha Tail + Bala Til Tail for 10 min
Swedana – Nadi sweda for 5 min

Shirodhara

With Dhanvantar Tail+Brahmi Tail for 45 min for Total 42 days of duration with 15 days gap in between two settings.

Nasya

Anutail was used for nasya 2-2 bindu in each nostril Kept him rest for 2 min.

Brihan Basti

Dicoctiona of Arjun Churna + Bala Churna + Ashwagandha Churna + Guduchi Churna + Musta Churna + Yashtimadhu Churna with Panchatikta Ghrita and Cow milk given 120 ml each day.

Annalepana

Shashtishalik tandul (barely powdered)+Ashwagandha Churna + Bala Churna used with Cow Milk and rubbed over patients body For 1 hour then washed off with lukewarm water.

Jivha Pratisarna

With Yashtimadhu Churna + Vacha Churna +Akkarkara Churna applied over tongue of patient kept for 5 min and then washed off.

Marma Pidana

Manual Pressure is applied to stimulate a specific point. Following are the marmas which were pressed- Awarta, Sthapani, Shankha, Ani, Janu,simanta, krukatika, Nitamba, Katikataruna, Indrabasti.

Internal Treatment Protocol

Name	Dose	Anupana	Duration
1) Arvindasava	10ml BD		
2) Kapikacchu Capsule	1 BD		
3) Bruhatchintamani Rasa	10ml BD	Koshna Jala (Lukewarm Water)	First 28 days
4) Capsule Poly Neuron Forte	1 BD		
5) Ashwagandha Ghrita	5ml BD	Dugdha paka	
1) Kumarkalyan Ghrita	10ml BD	Koshna jala	Next 28 Days and Still Going On
2) Arvindasava	10ml BD		
3) Ashwagandha paka	1tsf	1 cup of Milk	

Barthel Index

Ordinal scale used to measure performance in activity of daily living. Total Score = 100⁽¹⁸⁾

No	Terms	Categories	Score
A	Bowels	0-incontinent(or need to be given enema) 5- occasional accident 10- continent	10
B	Feeding	0-unable 5-needs help like cutting, spreading butter etc on required diet 10- independent	5
C	Bathing	0-dependent 5- independent (or in shower)	0
D	Dressing	0-dependent 5-needs help, little bit can do it himself 10- independent	0
E	Grooming	0- needs to help with personal care 5- independent	0
0-incontinent or unable to manage alone			
F	Bladder	5-occasional 10- continent	10
G	Toilet Use	0- dependent 5- needs some help 10- independent	5
H	Transfer from bed to chair and back	0- no sitting balance 5-major help to move 10- minor help 15- independent 0- immobile	5
I	Mobility	5-wheelchair independent 10-walks with help of a person 15-independent 0-unable	10
J	Stairs	5-needs help(physical, carrying aid) 10-independent	5

RESULT

1. Improvement in the hyperactivity movement was observed 40 % with stability in neck
2. Balance while walking got improved 20% with improvement in gait and gesture.
3. On the day of admission (15/05/2022) - the patient presented with muscle rigidity (++) which reduced to (+) after 30 days of treatment.
4. Improvement in speech was observed with good Cognitive Signs.
5. Object holding capacity increased to 60%

DISCUSSION

1. In parameters, Barthel Index was taken as assessment criteria to check efficacy of treatment. There is no specific improvement in Barthel Score Index.
2. But little improvement can be seen in activities like walking, Standing, seating and object holding.

3. In case of treatment provided, *Snehan Swedana* helped in reducing aggravated *vata* which caused excessive bodily movement in patient.
4. *Shirodhara* nourishes brain to have relaxing, soothing and calming effect in body and mind.
5. *Yapana basti* is a type of *Aasthapana basti* which promote longitivity of life and helps in reducing vataj dominating disease so as in *Tandava roga* (Chorea).
6. *Anutail nasya* reduced *dosha* in *urdhva jatrugata marga*.
7. *Jivhapratisarna* helps in improving speech abnormality by acting on Nervous system.

CONCLUSION

1. In this patient, small improvement has been seen after two cycle of treatment.
2. As this disorder is not completely curable, this percentage of improvement also helps the patient to improve the quality of life.
3. We are able to make small improvements in patient's condition as the treatment started in early stage.
4. By the result of this case study, we can conclude that *Ayurvedic* therapy (*Basti chikitsa, Shirodhara, Nasya, Jivhapratisarana and Marma Pidana*) along with appropriate internal medication can do a lot for the improvement in neurodegenerative disorder.

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