

Understanding Of Vata Dosha in The Manifestation of Tandava Roga with A Special Emphasis on Huntingtons Disease Chorea- A Conceptual Study

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Abstract—Huntington’s disease (HD) is a progressive, hereditary neurodegenerative disorder characterized by choreiform involuntary movements, cognitive decline, and psychiatric disturbances. In Ayurveda, the clinical manifestations of HD resemble *Tanḍava Roga*, a Vata-predominant Vata Vyadhi marked by rapid, jerky, uncoordinated limb movements reminiscent of the cosmic dance of Lord Shiva (*Tanḍava*). The pathogenesis of HD, when interpreted through the lens of Ayurveda, reveals a central role of Vata Doṣa vitiation, particularly *Prāṇa Vata* (regulation of higher mental functions and motor coordination), *Udana Vata* (speech and expression), and *Vyana Vata* (neuromuscular conduction and movement control). Progressive depletion of Dhatus notably *Majja Dhatu* and degeneration of neural substrates can be correlated to *Dhatukṣhaya-janya Vata Prakopa*. Genetic factors in HD parallel the concept of *Bija Doṣha* (hereditary defects), wherein vitiated Vata disrupts *Majja-vaha Srotas*, impairing both sensory and motor pathways. The resulting Vata aggravation leads to erratic motor impulses, similar to the clinical chorea observed in HD. Understanding HD through this integrative model not only provides insight into the Ayurvedic basis of its pathogenesis but also suggests a multi-pronged therapeutic approach focusing on *Vata Shamana*, *Majja Dhatu Poshana*, and *Srotoshodhana*. This conceptual correlation emphasizes the timeless relevance of Ayurvedic Vata theory in explaining and addressing complex neurodegenerative diseases.

Index Terms—*Tandava Roga*, Vata Dosha, *Vimshati Guna*, Huntingtons disease chorea, HD, *Panchavata*, *Vyatyasa Chikitsa*, *Rasayana*, *Satvavajaya chikitsa*.

I. INTRODUCTION

The Human Nervous System governs coordination, cognition, and behaviour through intricate neurophysiological mechanisms. Disorders that impair these functions, such as Huntington’s disease (HD), present formidable clinical challenges due to their progressive, hereditary, and incurable nature. HD is a neurodegenerative disorder characterized by rapid, nonpatterned, semi purposeful, involuntary choreiform movements¹, HD patients eventually develop behavioural & cognitive disturbances, resulting from autosomal dominant mutations in the HTT gene leading to degeneration of the basal ganglia and cerebral cortex². The classical description of chorea as rapid, unpredictable, and involuntary movements parallels the concept of *Tanḍava Roga*³ described in Ayurvedic texts, where excessive *Chala* and *Laghu Guna* of Vata activity manifests as violent, uncoordinated bodily movements akin to the cosmic dance of Lord Shiva (*Shiva Tanḍava*).

According to Acharya Charaka “*Vayustantrayantradhara*”, Vata Doṣha is the prime governing principle responsible for all voluntary and involuntary activities, including perception, cognition, and motor control⁴. When Vata becomes vitiated due to factors such as *Dhatu Kṣhaya* (tissue depletion), *Srotodushti* (channel obstruction), or *Beeja Doṣha* (genetic aberration), it gives rise to a spectrum of Vata Vyadhi, many of which exhibit neurological features comparable to modern neurodegenerative diseases. *Tanḍava Roga*, described among *Vata Nanatmaja Vyadhi*, is characterized by *Akṣepa* (convulsions or jerky movements), *Kampa* (tremors),

and Chesta Vaishmya (uncoordinated activity), closely resembling the motor manifestations of HD.

Ayurvedic classics emphasize that Vata governs both Sharira (body) and Manas (mind), linking physical and psychological functions. In HD, degeneration of neural tissues and disruption of neurotransmission correspond to Majja Dhatu Kshaya and Vata Prakopa within Majjavaha Srotas. Furthermore, the hereditary pattern of HD aligns with the Ayurvedic notion of Beeja Dosha, wherein defects in the reproductive elements (Shukra and Artava) lead to inherited disorders.

Understanding HD through the Ayurvedic framework offers an integrative model that not only deepens the conceptual understanding of its pathogenesis but also broadens the therapeutic possibilities. Ayurvedic management aims to restore Vata balance through Vatanulomana, Brimhana, Majja Dhatu Poshana, and Rasayana therapies, thereby addressing both neurodegenerative progression and functional restoration. This conceptual exploration thus seeks to elucidate the involvement of Vata Dosha in the manifestation of Tandava Roga, with special reference to Huntington's disease, bridging the wisdom of Ayurveda with modern neurophysiological insights.

II. AIM AND OBJECTIVES

Aim

To understand the role of Vata Dosha in the manifestation of Tandava Roga from an Ayurvedic conceptual framework.

Objectives

1. To review classical references of Tandava Roga and Vata Vyadhi.
2. To Analyse the role of Vata Dosha, Guna in disease manifestation.

3. To explain the Samprapti of Tandava Roga.
4. To correlate Ayurvedic concepts with modern neurological understanding.

III. GUNA OF VATA RELEVANT TO TANDAVA ROGA

Table No. 1 showing Vata guna with its relevance to Tandava Roga.

GUNA	EFFECT
Chala	Excessive, Uncontrolled movements
Laghu	Rapid, Jerky actions
Ruksha	Degeneration, Tissue dryness
Vishada	Lack of Coordination
Khara	Irregularity

IV. TANDAVA ROGA – CLASSICAL DESCRIPTION⁵

Tandava Roga is described as a Nanatmaja Vata Vyadhi. The term Tandava denotes rhythmic, repetitive movements similar to dance postures.

Lakshana (Clinical Features)

- Anga vikshepa (involuntary limb movements)
- Gatra kampana (tremors)
- Asamyak cheshta (uncoordinated movements)
- Vak vikriti (speech disturbances)
- Chittachanchalata (mental instability)

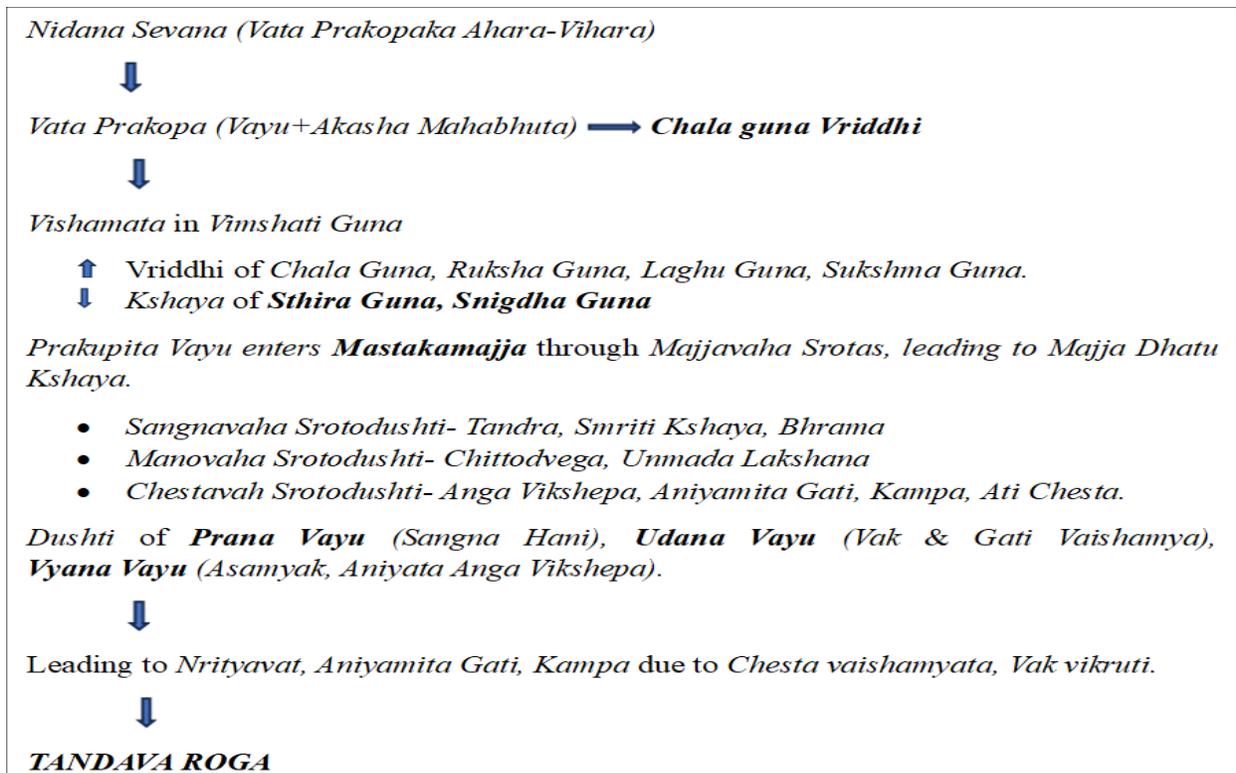
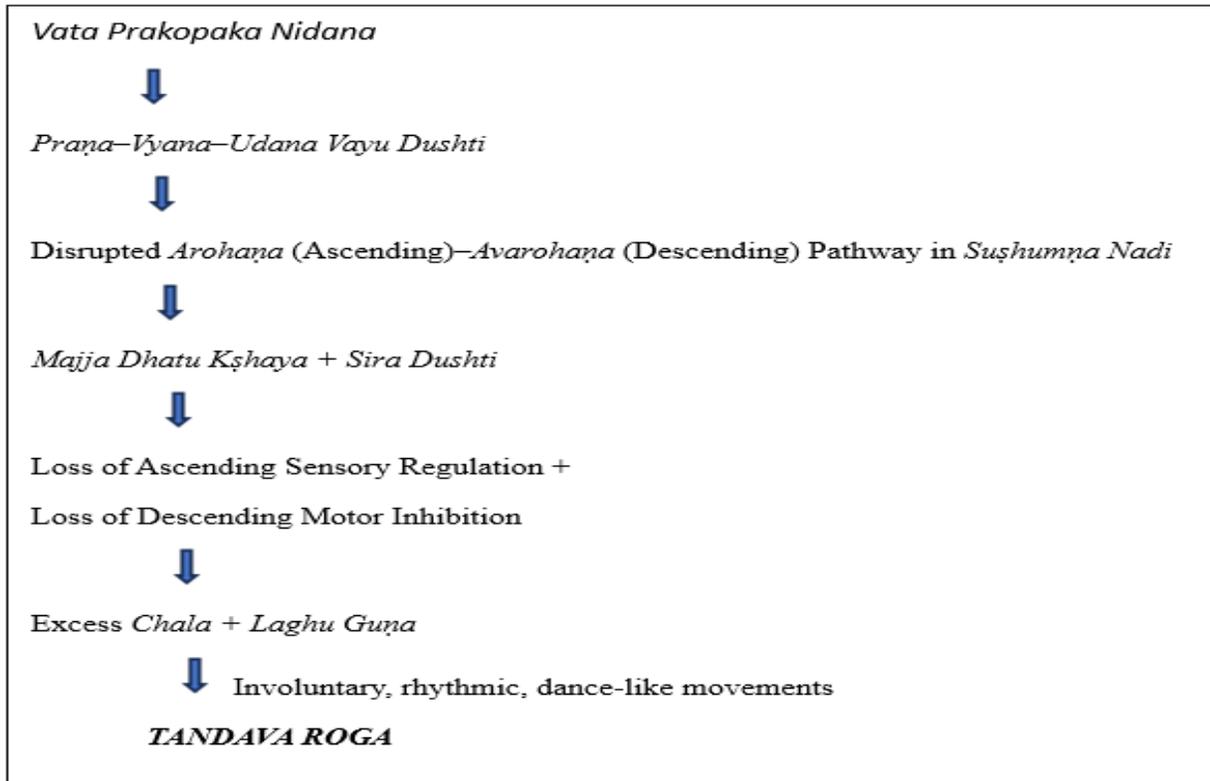
These features strongly indicate Prakupita Vata affecting Majja Dhatu and Snayu.

V. SAMPRAPTI OF TANDAVA ROGA

सुषुम्णया ब्रह्मरन्ध्रेण आरोह्य वरोहति ।

जीवः प्राणसमारूढो रज्जुवत् कोल्हटीक इव ॥

Flow Chart 1. Showing the Samprapti of Tandava Roga.



Flow Chart 2. Showing the Samprapti of Tandava Roga due to Chala Guna.

Nidana Sevana (Vata Prakopaka Ahara-Vihara)
Vata Prakopa (Vayu+Akasha Mahabhuta) Chala guna
Vridhhi

Vishamata in Vimshati Guna

- Vridhhi of Chala Guna, Ruksha Guna, Laghu Guna, Sukshma Guna.
- Kshaya of Sthira Guna, Snigdha Guna

Prakupita Vayu enters Mastakamajja through Majjavaha Srotas, leading to Majja Dhatu Kshaya.

- Sangnavaha Srotodushti- Tandra, Smriti Kshaya, Bhrama
- Manovaha Srotodushti- Chittodvega, Unmada Lakshana
- Chestavah Srotodushti- Anga Vikshepa, Aniyamita Gati, Kampa, Ati Chesta.

Dushti of Prana Vayu (Sangna Hani), Udana Vayu (Vak & Gati Vaishamyata), Vyana Vayu (Asamyak, Aniyata Anga Vikshepa).

Leading to Nrityavat, Aniyamita Gati, Kampa due to Chesta vaishamyata, Vak vikruti.

VI. ROLE OF VATA IN THE MANIFESTATION OF TANDAVA ROGA

1. Prana Vayu Dushti

- Impaired sensory integration
 - Loss of inhibitory control
 - Mental instability
- Comparable to Cortico-thalamic dysfunction

2. Vyana Vayu Dushti

- Loss of motor coordination
 - Uncontrolled spread of impulses
 - Hyperkinetic movements
- Comparable to Motor circuit dysregulation

3. Udana Vayu Dushti

- Speech impairment
 - Postural instability
 - Abnormal effort & gait
- Comparable to Bulbar & Extrapyrmidal dysfunction

VII. ROLE OF MAJJA DHATU & SIRA DUSHTI

- Majja Dhatu Kshaya
- Degeneration of neurons

- Loss of synaptic integrity
- Sira Dushti
- Impaired neurotransmission
- Loss of neural connectivity

VIII. CORRELATION WITH TANDAVA ROGA & HUNTINGTON'S DISEASE

Table no. 2 showing the Features of Tandava Roga with Huntington's disease.

FEATURES	TANDAVA ROGA	HUNTINGTONS DISEASE
Basic pathology	Vata Prakopa	Genetic Neurodegeneration
Dosha involved	Prana, Vyana, Udana Vayu	Neurotransmitter imbalance
Dushya	Majja dhatu	Neurons (Basal ganglia)
Srotas	Majjavaha, Vatavaha	CNS pathway
Guna	Chala, Ruksha, Laghu	Hyperkinesia
Main Symptoms	Nrityanniva chalati, Nidrayam kampa vivarjitaha	Involuntary dancing type of movements.
Mental features	Chitta chanchalata	Insomnia, lack of Awareness, Irritability.
Speech	Vak vikruti	Dysarthria
Pathogenesis	Progressive Vata vyadhi	Progressive Neurodegenerative disorder.
Prognosis	Yapya	Incurable

IX. TREATMENT PROTOCOL FOR TANDAVA ROGA

Chikitsa Siddhanta.

1. Nidana Parivarjana
 2. Vatasypakrama⁶
 3. Vyatyasa Chikitsa using Vimshatiguna Siddhanta.
- In Tandava Roga, Chala Guna Pradhana Vata is effectively pacified by Sthira Gunatmaka Chikitsa through Vimshati Guna Siddhanta restoring Neuromuscular & Psychological stability.

Table no. 3 showing the Vyatyasa Chikitsa of Vimshati Guna Siddhanta in Tandava Roga

Guna	Guna Vipareeta	Chikitsa
Chala	Sthira	Abhyanga, Shirodhara, Sthiradi varga Kashaya
Laghu	Guru	Sneha, Mamsa Rasa.
Ruksha	Snigdha	Ghrita, Taila
Sheeta	Ushna	Swedana
Khara	Mridu	Basti

4. Shodhana Chikitsa

a). Abhyantara Snehapana

Kalyanaka ghrita

Mahatiktaka ghrita

b). Bahya snehana- Abhyanga with Ksheerabala tiala, Mahanarayana taila.

Rationale- Counters Ruksha guna, nourishes Majja dhatu.

Swedana

- Shashtika Shali Pinda Sweda
- Patra Pinda Sweda
- Rationale- Reduces stiffness, improves circulation to Sira, Snayu.

Basti- “Basti Vataharm param”.

- Anuvasana Basti- Balataila, Ksheerabala Taila.
- Matra Basti
- Yapana Basti
- Rationale- Neuro-modulatory, Gut–brain axis regulation (important in HD)

Nasya- “Naso hi Shiraso dwaram”with Dhanwantharam 21 Avarta taila.

5. Role of Rasayana Chikitsa

- Vata Shamana: Rasayana drugs pacify aggravated Vata, thereby reducing abnormal neuronal excitability and involuntary movements seen in neurodegenerative disorders.
- Majja Dhatu Poshana: Rasayana nourishes Majja Dhatu, supports neuronal integrity, and helps counteract degeneration of nervous tissue.
- Neuroprotection: Many Rasayana dravya exhibit antioxidant and anti-inflammatory actions, protecting neurons from oxidative stress and progressive damage.
- Slowing Disease Progression: By improving cellular nutrition and metabolic efficiency, Rasayana therapy helps delay the progression of chronic neurodegenerative diseases.

- Functional Improvement: Rasayana enhances cognitive function, motor coordination, and overall quality of life, supporting better functional outcomes in affected individuals.

6. Satvavajaya chikitsa

- Mano nigraha
- Dhi-dhriti smriti Prabodhana
- Stress reduction & emotional balance
- Sadvritta and Sativa Ahara
- Achara Rasayana

7. Pathya apathya

Pathya

- Vatashamaka Ahara
- Brimhana Dravya
- Regular Abhyanga & Swedana
- Yoga & Pranayama
- Adequate Nidra

Apathya

- Ruksha, Sheetā, Laghu ahara
- Ati vyayama, Ati chesta
- Vegadharana
- Chinta, Bhaya, Krodha

X. CONCLUSION

Tandava Roga represents a classical Ayurvedic description of hyperkinetic neurodegenerative disorders, wherein derangement of Vata particularly Prana, Vyana, and Udana Vayu-leads to dysfunction of Majja Dhatu and Sira, resulting in involuntary, dance-like movements. The Pathological predominance of Chala, Ruksha, and Khara Guna explains the loss of motor inhibition, neuronal degeneration, and progressive functional decline observed in conditions analogous to Huntington’s disease. Correlation with modern neuroscience reveals significant parallels in terms of basal ganglia degeneration, neurotransmitter imbalance, and disrupted ascending–descending neural pathways. A comprehensive Ayurvedic approach encompassing Vata-shamana, Brumhana, Rasayana therapy, Satvavajaya Chikitsa, and appropriate Pathya-Apathya offers a rational, multi-targeted strategy aimed at Neuroprotection, symptom modulation, and improvement in quality of life. Thus, the Ayurvedic concept of Tandava Roga provides a holistic and integrative perspective for understanding and managing neurodegenerative movement

disorders, highlighting the scope for further clinical validation and interdisciplinary research.

REFERENCES

- [1] Harrison's Principles of Internal Medicine, by Anthony Fauci, Eugene Braunwald, Dennis Kasper, Stephen Hauser, Dan Longo, J. Larry Jameson, and Joseph Loscalzo, published by McGraw-Hill, 17th Edition, Volume 2, Chapter 367, Page no.2561, 2008.
- [2] Harrison's Principles of Internal Medicine, by Anthony Fauci, Eugene Braunwald, Dennis Kasper, Stephen Hauser, Dan Longo, J. Larry Jameson, and Joseph Loscalzo, published by McGraw-Hill, 17th Edition, Volume 2, Chapter 367, Page no.2561, 2008.
- [3] Harrison's Principles of Internal Medicine, by Anthony Fauci, Eugene Braunwald, Dennis Kasper, Stephen Hauser, Dan Longo, J. Larry Jameson, and Joseph Loscalzo, published by McGraw-Hill, 17th Edition, Volume 2, Chapter 367, Page no.2561, 2008.
- [4] Acharya Charaka of Charaka Samhita, Text with English translation and critical exposition based on Chakrapani datta's Ayurveda Deepika, By R.K Sharma Bhagwan dash, Chaukhambha Sanskrit Series office, Varanasi, Reprint; 2017, Volume 1, Sutrasthana, 12th Chapter, Verse no 8, Page no.237.
- [5] Acharya Sharangadhara of Sharangadhara Samhita, Hindi Commentary by Sri Prsyagadatta Sharma, Notes by Sri Lakshmiapati Tripathi, Edited by Sri Dayashankara Pandeya, The Haridas Sanskrit Series 151, Chaukhambha Amarabharati Prakashana, Varanasi, Prathama Parishishtham, Verse no. 12, Page no. 457.
- [6] Astanga sangraha, edited by Kaviraj Atridev Gupta, Chaukhamba Krishnadas Academy, Varanasi, Su 11/03 Page no.166.