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Case Report

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AYURVEDIC MANAGEMENT OF PARKINSON-PLUS SYNDROME (MULTIPLE SYSTEM ATROPHY - PARKINSONIAN TYPE): A CASE REPORT

Dr. Sharada M.[1*], Dr. Varsha Kulkarni[2], Dr. Sukesh M. K.[3]

*[1]Final Year PG Scholar, Department of Panchakarma, GAMC & H, Mysuru.
[2]Professor and Head, Department of Panchakarma, GAMC & H, Mysuru.
[3]Resident Medical Officer, Government Hi-Tech Panchakarma Hospital, Mysuru.

***Corresponding Author: Dr. Sharada M.**

Final Year PG Scholar, Department of Panchakarma, GAMC & H, Mysuru.

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ABSTRACT

Parkinson-plus syndromes (PPS), or atypical parkinsonisms, are a group of neurodegenerative movement disorders that mimic idiopathic Parkinson's disease but are distinguished by additional clinical features, a poor or absent response to levodopa, and a more rapidly progressive course. Multiple System Atrophy with predominant Parkinsonism (MSA-P) is one such entity, characterised by akinetic-rigid parkinsonism, early postural instability with falls, autonomic dysfunction, and bulbar speech involvement. Modern management remains largely symptomatic and unsatisfactory. **Case Report:** A 72-year-old male with a two-year history of progressive gait disturbance, right lower-limb weakness, slurred speech, dysphagia, tremors and autonomic symptoms, poorly responsive to conventional anti-parkinsonian therapy, who was diagnosed with MSA-P. The presentation correlated with Vatavyadhi featuring Avarana (obstruction of Vata by Kapha) and features described under Sushrutokta Ardita Lakshana. **Methodology:** The patient was managed with a sequential Panchakarma protocol comprising Deepana-Pachana, Shirodhara, Nasya, Koshtashodhana, Sarvanga Abhyanga with Shashtika Shali Pinda Sweda, and Yoga Basti (Mustadi Rajayapana Basti with Ashwagandha Ghrita Anuvasana). **Conclusion:** Following treatment, the patient showed improvement in muscle power (Right lower limb from Grade 3/5 to 4/5), reduction in tremor, improved gait and balance, reduced freezing episodes, better sleep and mood, and an overall reduction in total symptom score from 39/68 to 18/68 on a structured symptom-scoring assessment.

KEYWORDS: Parkinson-plus syndrome, Multiple System Atrophy, Vatavyadhi, Avarana, Shirodhara, Nasya, Basti.

INTRODUCTION

Parkinson's-plus syndromes comprise a group of atypical parkinsonian disorders characterized by progressive parkinsonism accompanied by additional neurological and autonomic manifestations.[1] Multiple System Atrophy (MSA) is a rare, sporadic and progressive neurodegenerative disorder presenting with varying combinations of parkinsonism, autonomic dysfunction, cerebellar impairment and pyramidal signs. Based on the predominant motor phenotype, MSA is classified into MSA-P (parkinsonian type) and MSA-C (cerebellar type), with MSA-P predominantly characterized by parkinsonian features.[2,3]

MSA is a neurodegenerative α-synucleinopathy characterized by progressive neuronal degeneration and accumulation of misfolded α-synuclein within oligodendroglial cells, forming characteristic glial cytoplasmic inclusions.[4,5] Clinically, MSA-P commonly manifests with bradykinesia, rigidity, gait disturbance, postural instability, recurrent falls and prominent autonomic dysfunction, particularly urinary disturbances.[5,3] Dysarthria and progressive functional impairment may further contribute to disability.[3] Early autonomic dysfunction, postural and gait impairment and a poor or transient response to levodopa help distinguish MSA-P from idiopathic Parkinson's disease.[5,6]

Despite advances in understanding its pathophysiology and diagnosis, MSA remains a rapidly progressive disorder with limited disease-modifying treatment options, and current management is largely symptomatic and supportive.[7] The 2022 Movement Disorder Society (MDS) diagnostic criteria have improved clinical characterization by incorporating different levels of diagnostic certainty and supportive clinical and neuroimaging features. These therapeutic limitations highlight the need to explore individualized approaches that may address the complex motor, autonomic and functional manifestations of the disease.[3]

From an Ayurvedic perspective, the multisystem neurological manifestations of MSA-P may be considered within the broader spectrum of Vatavyadhi, particularly when features such as Vepathu, Gati-sanga, Guruta, Sandhyasthi ruja, Vak-sanga and Mukha-vakrata are present. The involvement of shiras, disturbance of Prana, Udana, Vyana, Apana Vata, Avarana and progressive Dhatukshaya provide a conceptual basis for individualized management. In the present case, the clinical manifestations were interpreted as Vatavyadhi with Sushrutokta Ardita Lakshanas[8], and an integrated Ayurvedic treatment protocol was adopted.

AIM AND OBJECTIVES

- To document the clinical presentation and Ayurvedic assessment of a patient diagnosed with Parkinson-plus syndrome (Multiple System Atrophy - Parkinsonian type).
- To evaluate the effect of Panchakarma treatment protocol on the motor and non-motor symptoms of the condition.
- To discuss the probable mode of action of each intervention employed, both from a classical Ayurvedic and a contemporary pharmacological/physiological perspective.

MATERIAL AND METHODS

CASE REPORT

History Of Present Illness

A 72-year-old male patient was apparently normal 8 years ago.He met with a Road traffic accident in 2018, following which he had bleeding from the head and ear. He also had a fracture of the head. After few days, he noticed gradual slowness in activities, including walking, a sensation of being pushed, repeated falls, sudden freezing of thoughts, irritability, and imbalance while walking. He also complained of occasional tremors. In 2022 and 2024, he again had falls, after which his symptoms worsened. Later, he developed reduced strength in the right lower limb, associated with numbness in both lower limbs, pain in the knee joints, and increased frequency of micturition at night with urgency. He also had difficulty in speaking, in the form of slurred speech. For these complaints, he consulted many physicians, and medications were prescribed, but his symptoms did not subside. For the past one year, in addition to all the above symptoms, he also complained of severe eye pain associated with watering. Hence, for all these complaints, he came to our hospital for better management.

History Of Past Illness

- K/C/O Parkinsons Syndrome since 2018 on medication,
- Diabetes mellitus, Hypertension, Dyslipidemia, Thyroid dysfunction since 13 years on medication

Treatment History

- Cilacar T / Torcilin T 10 mg 1-0-1 A/F
- Tab. Syndopa Plus 1-1-0
- Tab Parkitidin 100 1-0-1
- Tab Pramipex ER 0.75 0-0-1
- Volibo m 0.3 mg 0-0-1 A/F
- Accuglim MP 1 mg 1-0-0 A/F
- Thyronorm 75 mcg 1-0-0 B/F
- Nexito forte 0-0-1
- Quetiapine 25mg 1-0-1
- Rozavel A 10/75 0-0-1 A/F
- Tab Ultracret 1 SOS – Pain reliever
- Cap Nexpro RD 40 mg 1-0-0
- Supradyn Tab 0-1-0 A/F
- Prohance D Powder

Personal History

Diet: Mixed
Bowel: Priorly had on and off constipation, now Regular (on medication)
Appetite: Reduced
Micturition: Increased frequency at night, urgency (5-6 times)
Sleep: Disturbed
Habits: Alcohol since 32 years 180 ml 6 days in a week (Triple X -Rum) stopped since 8 years

Family History

- 1st degree Consaguinous marriage of parents of patient.
- No similar complaints in the other family members

Occupational History

Patient had severe Stress during work which may be a contributory factor.

GENERAL EXAMINATION

- Built: Hypersthenic
- Height : 160 cm
- Weight: 68 kg
- BMI: 26.6
- Pallor: Absent
- Icterus: Absent
- Cyanosis: Absent
- Clubbing: Absent
- Lymphadenopathy: Absent
- Edema: Absent

Vitals

- Temperature : 98.6 F

- Pulse rate: 68 / min
- Respiratory Rate: 18 per minute
- Heart Rate : 68/ min
- Blood pressure : 110/70 mmhg

SYSTEMIC EXAMINATION

- Respiratory system – NAD
- Cardiovascular system- NAD
- Gastrointestinal System - NAD

Central Nervous System Examination

HMF (Table No. 1)	Findings
Consciousness	Conscious and oriented to person, place and time
Memory	Intact
Intelligence	Intact
Hallucination	Present (Tactile)
Delusion	Absent
Dysphagia	Present
Dysarthria	Present

Table No. 2.

Cranial nerves examination	
Olfactory	Smell sensation- Normal
Optic	Visual Acuity- Hypermetropic
	Visual Field - Normal
	Colour Vision - Normal
Occulomotor, Trochlear, Abducens	Movements of eye - not elicited due to severe pain in eyes Pupil size – not elicited due to severe pain in eyes Light reflex- not elicited due to severe pain in eyes Conjugated reflex- not elicited due to severe pain in eyes
Trigeminal	Sensory- Touch, Pain, Pressure- Normal
	Motor- Lateral movements of Jaw- Sluggish
Facial Nerve	Forehead frowning- Absent Eyebrow raising- Absent Eye Closure- not elicited due to severe pain in eyes Blowing of Cheek- Slight passing of air through left edge of mouth Nasolabial fold- Normal Deviation of mouth- Left Clenching of teeth – not possible Delayed eye closure- Present
Vestibulocochlear	Webers test- Normal Rinnes test-Normal
Glossopharyngeal and Vagus	Position of Uvula- Central Taste Sensation- Normal
Accessory nerve	Shrugging of shoulder- Normal Sternocleidomastoid- Normal
Hypoglossal nerve	Tongue Movements – Mild tremors Power of Tongue- Reduced

Table No. 3-Motor System Examination

Muscle Bulk				
	Mid arm circumference	**Mid forehand circumference**	**Mid thigh circumference**	**Mid calf Circumference**
Right	11 inch	8.5 inch	16.5 inch	12 inch
Left	10.5 inch	8.5 inch	17.5 inch	13 inch
Muscle tone				
Upper Limb	**Lead pipe rigidity** + in B/L Upper limbs			
Lower limb	Hypertonia + in B/L Lower limbs			
Muscle Power				
	Right		**Left**	
Upper limb	Normal		Normal	
Lower limb	3/5		Normal	

Table No. 4 -Deep tendon reflexes		
	Right	**Left**
Biceps reflex	++	++
Triceps reflex	++	++
Supinator Reflex	Diminished	Diminished
Knee Reflex	++	++
Ankle Reflex	++	++
Babinski	No response	No response
Glabellar tap	Affected	
Jaw jerk	++	
Clonus Knee clonus Ankle Clonus	Absent	Absent

Sensory System- NAD.

Coordination tests (Table No. 5).

Equillibrium test	Static – positive (unable to stand for long time) Dynamic – Positive
Non Equilibrium test	• Finger to nose test: Minimal Intentional tremor present • Finger to Finger test: Minimal Intentional tremor present • Hand tapping /tapping the circle test: Normal • Micrographia : Present • Heel to shin : Difficult to perform • Heel to heel : Difficult to perform • Drawing a circle : Normal • Pointing and past pointing: Minimal intentional tremor present • Dysdiadochokinesia : Present
Balance tests	• Rhombergs test : Positive • Tandem walking: Not possible

MUSCULOSKELETAL SYSTEM

Inspection	• Gait: Ataxic gait • Redness: Absent • Deformity : Absent • Swelling : Absent
Palpation	• Crepitus : Rt++, left + • Tenderness: + in Rt • Warmth : Absent

ASHTA STHANA PARIKSHA (Table no. 6)

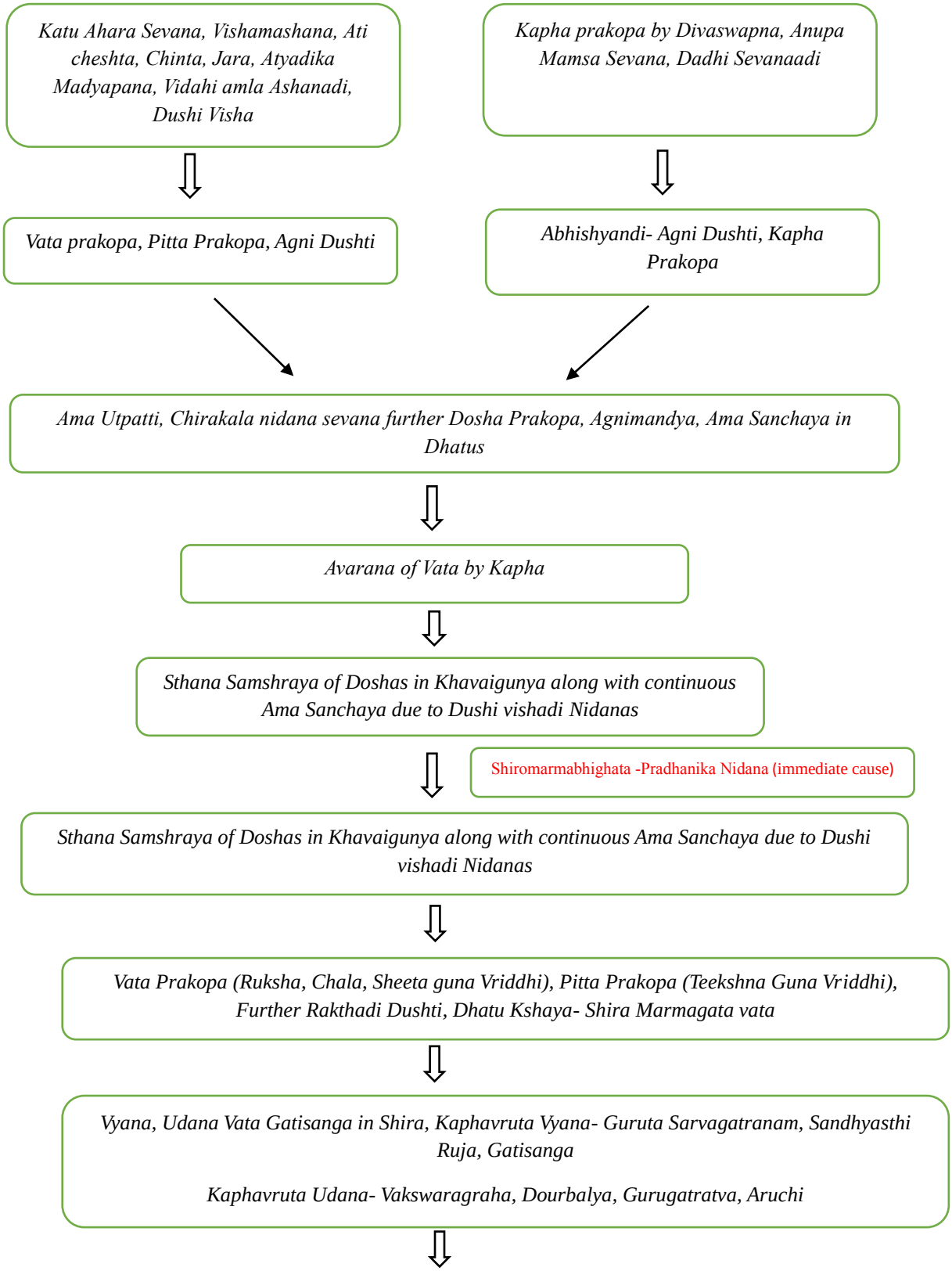
Sthana	
Nadi	Vatapitta
Mutra	Atipravrutti +
Mala	Muhur Baddha varcha
Jihwa	Lipta
Shabda	Prakruta
Sparsha	Sheeta-ushnata - prakruta
Drik	Rakta-Tamra Netra, Netra Srava+, Timira
Akriti	Madhyama

DASHAVIDHA PARIKSHA (Table no. 7)

Pariksha	
Prakriti	Vata kapha
Vikriti	Vata (Prana, Vyana, Samana, Udana), Pitta (Pachaka, Sadhaka), Kapha(Tarpaka)
Sara	Madhyama
Samhanana	Madhyama
Satva	Madhyama
Satmya	Madhyama

Aharashakti	Abhyavaharana Shakti : Avara
	Jarana Shakti: Avara
Vyayamashakti	Avara
Vaya	Vriddha
Pramana	Madhyama

SAMPRAPTI: (Flowchart No.1)



Vimargagamana- Snayuvishoshana

⇩

Chirakala Avarana- Dhatukshaya

⇩

Vatavyadhi with Sushrutokta Ardita Lakshana
Avarana- Vakswaragraha, Dourbalya, Aruchi, Guruta sarvagatranam, Sandhyasti Ruja, Gatisanga
Ardita Lakshana- Vaktrarda vakrata, Greeva Vakrata, Shiraschalana, Vaksanga, Netradinaam Vaikrutam

SAMPRAPTI GHATAKA: (Table no. 8)

Samprapti ghataka	Involved
Dosha	Vata (Prana, Vyana, Samana, Udana), Kapha (Tarpaka), Pitta (Pachaka)
Dushya	Rasa, Rakta, Mamsa, Asthi, Majja, Snayu
Agni	Jatharagni janya, Dhatwagni mandya janya
Srotas	Rasavaha, Raktavaha, Mamsavaha, Asthivaha, Majjavaha
Srotodushti	Atipravritti, Sanga, Vimargagamana
Udbhava Sthana	Pakwashaya
Sanchara Sthana	Sarva Shareera
Vyakta Sthana	Adhoshaka, Panipada, Mukha
Adhisthana	Mastishka
Rogamarga	Madhyama
Sadhyasadhyata	Kashta sadhya

DIAGNOSIS: Parkinsons Plus Syndrome- Multiple System Atrophy (MSA-P), Vatavyadhi with Sushrutokta Ardita lakshanas.

INTERVENTION

Table no. 9: Therapeutic intervention (Panchakarma and Shamanoushadhi).

Date	Chikitsa given	Changes observed
29/12/25-13/01/2026 (11 days)	1. Deepana pachana with Agnitundi vati 1-1-1 2. Vata vidhwamsi Rasa 1-1-1 3. Bala Saireyakadi Kashaya 10 ML TID 4. Tab Neurevive 1-0-1 A/F	➢ Heaviness in body parts reduced ➢ **Loss of appetite – improved by 90%**
14/01/2026-20/01/2026 (7 days)	1. Shirodhara with Ksheerabala Taila + Bramhi taila 2. Nasya with Ksheerabala 101 10 drops each nostril	➢ **Irritability- Reduced by 60%** ➢ **Loss of Sleep- Improved by 80%** ➢ **Feeling of being pushed – Reduced By 30%** ➢ **Freezing of thoughts- Reduced by 30%** ➢ **Imbalance – reduced by 20%** ➢ **Speech- Improved by 10%** ➢ **Difficulty in walking- Persists** ➢ **Pain, Numbness, Weakness in Right lower limb-Persists** ➢ **Muscle power- 3/5 in Rt LL**
21/1/2026	Koshtashodhana with Eranda taila -30 ML	➢ **Number of vegas - 4**
22/01/2026-29/01/2026 (8 days)	1. Sarvanga Abhyanga with Ksheerabala taila followed by Shashtika Shali pinda Sweda 2. Yoga Basti A- Ashwagandha Ghrita – 80 ML N- Mustadi rajayapana Basti	➢ **Irritability- Reduced by 60%** ➢ **Feeling of being pushed – Reduced By 40%** ➢ **Freezing of thoughts- Reduced by 50%** ➢ **Imbalance – Reduced by 40%** ➢ **Difficulty in walking- Reduced by 30%** ➢ **Rigidity – Reduced by 20%**

	Madhu- 30 ML Saindhava Lavana- 6 gm Ashwagandha Ghrita- 80 ML Kalka- 20 gm Mustadi Ksheerapaka- 300 ML Mamsa Rasa – 100 ML	➢ **Pain, Numbness, Weakness in Right lower limb-50 % better** ➢ **Muscle power- 4/5 in Rt LL** ➢ **Bowel habits - Improved** ➢ **Appetite -100% improved**

OBSERVATION AND RESULT

MUSCLE POWER: (Table no. 10)

	BEFORE SHIRODHARA AND NASYA	AFTER SHIRODHARA AND NASYA	AFTER MUSTADI RAJAYAPANA BASTI
UPPER LIMB	**NORMAL**	**NORMAL**	**NORMAL**
LOWER LIMB	**3/5**	**3/5**	**4/5**

MUSCLE TONE: (Table no. 11)

	BEFORE TREATMENT	AFTER TREATMENT
UPPER LIMB	**HYPERTONIC**	**HYPERTONIC**
LOWER LIMB	**HYPERTONIC**	**HYPERTONIC**

REFLEXES: (Table no. 12)

REFLEXES	BEFORE TREATMENT		AFTER TREATMENT	
	Right	Left	Right	Left
Biceps reflex	++	++	+	+
Triceps reflex	++	++	+	+
Supinator Reflex	Diminished	Diminished	Diminished	Diminished
Knee Reflex	**Hypertonic**	**Hypertonic**	**Hypertonic**	**Hypertonic**
Ankle Reflex	**Hypertonic**	**Hypertonic**	**Hypertonic**	**Hypertonic**
Glabellar tap	Affected		Affected	
Jaw jerk	++		+	
Clonus Knee clonus Ankle Clonus	Absent	Absent	Absent	Absent

Table No. 13-Assessment and Diagnosis - Hoehn and Yahr Scale.

Symptoms	Total Score	Score found in patient during first evaluation	Score after treatment
Bradykinesia	4	4	2
Tremors	4	2	1
Gait	4	2	1
Balance /Postural Disability	4	4	3
Freezing	4	3	1
Nocturnal Akinesia	4	3	2
Fatigue	4	4	2
Urinary	4	4	2
Cognitive Impairment	4	3	1
Depression / Anxiety	4	4	1
Symptomatic or Orthostatic Hypotension	4	1	0
Hallucination or thought disorder	4	2	0
Dyskinesia	4	0	0
Dystonia	4	0	0
Dopamine Dysregulation syndrome	4	0	0
Disability	4	3	2
Total	**68**	**39**	**18**

OUTCOME & FOLLOW UP: Symptoms were reduced.

DISCUSSION ON DISEASE

Parkinson's-plus syndromes are atypical parkinsonian disorders characterized by parkinsonism with additional neurological and autonomic manifestations. Multiple System Atrophy-Parkinsonian type (MSA-P) is a progressive neurodegenerative disorder marked by α-synuclein accumulation and degeneration of nigrostriatal, cerebellar and autonomic pathways. Clinically, it presents with bradykinesia, gait freezing, postural instability, recurrent falls, dysarthria and prominent autonomic dysfunction, particularly urinary disturbances, with a poor or transient response to dopaminergic therapy. In the present case, progressive gait impairment, freezing, recurrent falls, dysarthria, lower-limb weakness, sensory disturbances and urinary symptoms, along with inadequate response to conventional treatment, are suggestive of the multisystem involvement characteristic of MSA-P.

In Ayurveda, the presentations of this patient may be understood as a Vatavyadhi presenting with Sushrutokta Ardita lakshanas, with Vata as the predominant Dosha associated with Kapha and Pitta involvement. The presence of Vepathu, Guruta sarva gatranam, sandhyasthi ruja, gati sanga Mukha vakrata, Greeva vakrata Vak sanga, Netra bhru stabdhata, Mukha parshwa peeda closely corresponds to the described manifestations of Vatavyadhi and Ardita. The history of Shiromarmabhighata following RTA is significant as a possible precipitating or aggravating factor for Prana Vata. Vata and Kapha-provoking factors may lead to Agni dushti and Ama formation, followed by Kapha-Ama induced Srotorodha and Avarana of Vata, disturbing its normal Gati. This Avarana component may account for the initial features of stiffness, heaviness, slowness and freezing. The involvement of different Vata subtypes provides a correlation with the multisystem manifestations: Prana Vata with neurological and higher mental functions, Udana Vata with speech disturbance, Vyana Vata with coordinated movements, gait and postural control, and Apana Vata with urinary dysfunction. The patient's dysarthria, gait disturbance, impaired motor control, weakness and other neurological manifestations can be correlated with the characteristic features described under Ardita by Sushruta. With chronicity, persistent Vata aggravation and impaired tissue nourishment may result in Dhatu kshaya, further aggravating Vata and producing progressive functional decline. Hence here the treatment would require Ama pachana, Avaranahara, Snehana for Vata Shamana, Brimhana, Basti and Rasayana based management.

DISCUSSION ON TREATMENT

The treatment was planned based on the Vikara prakruti, Adhishtana and Samutthana[9] of the disease, with due consideration to the involvement of Shiras, being an important Adhishtana of the presenting pathology, and the principle of Marma paripalana. Deepana-Pachana was instituted first to correct Agnimandya and clear Ama before any Brimhana or Shodhana measure was done. Considering the predominant neurological manifestations and Shiro marma involvement, Shirodhara and Nasya were initially administered to address the pathology at its primary site. This was followed by Koshta shodhana to correct the Gati of Vata and cleanse the gut prior to further therapies. Subsequently, Abhyanga and Shashtika Pinda Sweda were employed for Vata Shamana, Brimhana and Bala vardhana, followed finally by Yapana Basti to address the chronic pathology and provide sustained Brimhana and Rasayana.

1. Deepana Pachana

Deepana-Pachana with Agnitundi Vati, Vata Vidhwamsi Rasa and Bala Saireyakadi Kashaya was administered first to correct Agnimandya, digest accumulated Ama, and prepare the Srotas for further Shodhana and Brimhana procedures improving the patient's appetite by 90% and reducing generalised heaviness before any further intervention was undertaken.

2. Shirodhara

Procedural action: The Ruksha, Laghu, Khara and Sheeta qualities of aggravated Vata affect the Mastulunga (brain tissue) at the level of Shira Marma. Continuous pouring of medicated Sneha over the forehead (Murdha Sneha) pacifies this vitiated Vata, restores sensory clarity (Indriya Prasadana) and removes the sense of emptiness in the head (Shira Shoonyata). Important Marma of the head and forehead include Sthapani, Utkshepa, Avarta, Shankha and Apanga lie in this region; Acharya Bhela identifies Sthapani Marma as the seat of Chitta (Mana) and notes its topographical correspondence with the pituitary-pineal axis. Rhythmic stimulation at this site is understood to indirectly influence pituitary function, thereby reducing anxiety, irritability and mood disturbance and improving sleep quality directly relevant to the irritability and disturbed sleep recorded in this patient. The medicated liquid stream poured from a defined height is thought to generate rhythmic mechanical and thermal stimuli that are transduced to the cerebral cortex and hypothalamus, producing a soothing hypothalamic effect. This is proposed to modulate the hypothalamic-pituitary axis influencing dopamine release via the tuberoinfundibular pathway, indirectly stabilising dopaminergic signalling through reduction of cortisol-driven suppression, rebalancing autonomic tone, and downregulating neuroinflammation, which otherwise impairs dopamine synthesis and accelerates neuronal loss. Clinical studies of oil-dripping treatment (Shirodhara) have documented reduced state anxiety, altered plasma noradrenaline and urinary serotonin excretion, and changes in thyrotropin-releasing hormone, dopamine and natural-killer-cell activity relative to controls.[10]

Drug action: Ksheerabala Taila (Bala-Sida cordifolia, Cow's milk, Tila Taila) is neuroprotective and GABA-

mimetic, supporting nerve conduction and synaptic transmission and reducing neurodegeneration. Bramhi Taila (Bacopa monnieri, sesame oil with Amalaki and Yashtimadhu) contributes Bacosides A and B, which enhance synaptic plasticity, cognition and memory, and provide antioxidant neuroprotection.

3. Nasya with Ksheerabala 101 drops

Procedural Action : Considering the involvement of Shiromarma, predominance of Vata and the presence of Vak-sanga (slurred speech), **Brimhana Nasya** was selected to nourish and support the functions of the Shiras and regulate Vata. From a contemporary perspective, intranasal administration is increasingly recognized as a potential **nose-to-brain drug-delivery route**, with the olfactory and trigeminal pathways providing anatomical connections between the nasal mucosa and central nervous system and potentially facilitating CNS delivery while partially bypassing the blood–brain barrier. Thus, the traditional rationale of targeting Shiras through Nasya can be conceptually supported by contemporary evidence on intranasal CNS delivery.

Drug action: Shatapaki Ksheerabala Taila, processed repeatedly with milk, possesses Vata-Shamaka, Brimhana, Rasayana and Indriya prasadana properties and was therefore considered appropriate for the chronic, degenerative nature of the condition. Balamoola (Sida cordifolia) is a potent antioxidant; its flavonoid content and reducing capacity are attributed to the generation of reductones, which terminate free-radical chain reactions. Bala additionally has anti-inflammatory, analgesic and neuroprotective actions attributable to ephedrine, phytosterols and flavonoids that modulate oxidative-stress and inflammatory pathways implicated in neurodegeneration; its Quercetin and Kaempferol derivatives inhibit MAO-B (reducing dopamine breakdown), while Sesamin and Sesamol reduce dopaminergic neuronal apoptosis mechanistically supporting Nasya's contribution to the improvement seen in speech and freezing episodes.

4. Koshtashodhana with Eranda taila

Koshtashodhana was performed as Poorva Karma to Basti, since Eranda Taila produces Anulomana of accumulated Mala in the Srotas, thereby relieving the obstruction (Sanga) to Vata that had developed. Clearing accumulated Mala and Ama from the gut opens the Srotas (microchannels) and improves subsequent medicinal absorption. Through gut–brain axis optimisation, it improves microbiota balance and reduces pro-inflammatory endotoxin load, normalising Enteric Nervous System signalling and reducing aberrant inhibitory input to the central nervous system a mechanistically important step, since more than half of the body's dopamine synthesis is now understood to occur in the gut.

5. Sarvanga Abhyanga with Ksheerabala taila followed by Shashtika Shali pinda Sweda

Procedural action: Acharya Sushruta notes that Sparshanendriya, predominantly a Vata-Sthana, is located in Twak (skin); Sarvanga Abhyanga therefore pacifies Vata and imparts Pushti and Dardhyata. Acharya Dalhana further comments that, by roughly 900 Matrakala of Abhyanga, the Sneha used reaches the Majja Dhatu via the Sira Mukha, pacifying Tridosha. Ksheerabala Taila was chosen here for its Brimhana and Vatahara properties. Shashtika Shali Pinda Sweda, a Brimhana Sweda, pacifies the Toda, Bheda and other pain patterns of Kevala Vata, imparts Dehapushti and Bala, and pacifies Sarvanga Vata; the lipid-soluble processed rice–milk bolus enhances transdermal drug absorption, and the warmth generated by rhythmic Pottali application dilates local capillaries, increasing drug permeability and facilitating nerve-impulse transmission with minimal stimulus for muscular contraction thereby supporting muscle strength and elasticity.

Drug action: Shashtika Shali is Snigdha, Balavardhana and Dehadardhyakrita; Bala and Godugdha are Snigdha, Balya, Rasayana and Vatahara, with Bala specifically preventing muscular emaciation through local tissue absorption. Navara rice is rich in carbohydrate, protein and Oryzanol shown in animal studies to improve exercise endurance and muscle strength together with phenolic acids, anthocyanins and flavonoids with neuroprotective and antioxidant activity; milk contributes protein, fat and lactose for tissue nourishment. Sida cordifolia's ephedrine and related alkaloids stimulate the central nervous system and, via alpha and beta-adrenergic receptor stimulation, release endogenous catecholamines affecting brain and heart function together explaining the reduction in spasticity and gain in muscle strength and tone observed clinically.

6. Yoga Basti

A- Ashwagandha Ghrita

N- Mustadi rajayapana Basti

Procedural action: Mustadi Yapana Basti is Sadyo-Balajanana and Rasayana in effect. The Veerya of the Basti Dravya is distributed throughout the body by the five Vata subtypes: Apana Vayu first transports it to the site of Samana Vayu and normalises it; from Samana it passes to Vyana Vayu, correcting Gati (movement) - explaining the observed improvement in tremor and gait while its Veerya spreads laterally via Vyana, downward via Apana, and upward via Prana Vata. In terms of pain and weakness in the lower limb, arising from Dhatukshaya and Balakshaya, the Basti nourishes Rakta and other Dhatus, reduces Januru-Janghasthi Shoola, and acts as a Rasayana achieving both Vata-Shamana and Dhatu-Brimhana with Ojovardhana. Basti karma is understood to act substantially through stimulation of the Enteric Nervous System (the 'gut brain'); the sigmoid, rectal and anal regions are richly supplied with parasympathetic fibres important to defecation reflexes.

Central dopamine, synthesised chiefly in the substantia nigra and ventral tegmental area from dietary tyrosine, is dysregulated in this condition; notably, dopamine is also produced outside the brain including by gut Staphylococcus species that convert L-DOPA to dopamine and more than half of total-body dopamine synthesis occurs in the gastrointestinal tract, where dopamine and its receptors influence gastric secretion, motility and mucosal blood flow.

Drug Action: Mustadi Rajayapana Basti, through its constituent Musta, Ushira, Bala, Guduchi, Manjishta, Katurohini, Punarnava, Vibhitaka, Trayamana and Madanaphala, contributes anti-inflammatory, antioxidant, hepatoprotective, immunomodulatory and mild laxative actions that together are proposed to enhance gut microbiota function relevant to central dopaminergic tone. Ashwagandha Ghrita, used as Anuvasana, combines the Deepana-Pachana action of its Tikta Dravyas (Vayu-Akasha Mahabhuta dominant) with the Snigdha, Agni, Shukra and Ojo-vardhaka, Yogavahi properties of Ghrita, so that the Veerya of its constituent drugs Ashwagandha, Jeevanti, Rishabhaka, Kakoli, Madhuka, Mridveeka, Mashaparni and Vidari reaches Asthi and Majja Dhatu, achieving Vata-Shamana with Dhatu-Pushti. Pharmacologically, Ashwagandha's withanolides (withaferin-A, withanone) are adaptogenic, anti-stress, neuroprotective and antioxidant; Kapikacchu (present in the wider protocol) contributes natural L-DOPA with dopaminergic action; and Ghrita itself enhances the bioavailability of these fat-soluble phytoactives.

CONCLUSION

MSA-P is a progressive and challenging neurodegenerative disorder with limited therapeutic options and poor response to conventional management. In the present case, an Ayurvedic approach based on the principles of Vatavyadhi, Sushrutokta Ardita lakshanas, Shiromarma paripalana, Avarana and Dhatukshaya was adopted. A sequential management comprising Shirodhara, Brimhana Nasya, Koshtashodhana, Abhyanga, Shashtikashali Pinda Sweda and Yapana Basti was employed, targeting both the Shiras and Vata Vikriti. The observed clinical improvement suggests that a multimodal, individualized Ayurvedic approach may have potential in improving functional symptoms and quality of life in MSA-P.

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