



AYURVEDIC APPROACH TO MULTIPLE SYSTEM ATROPHY: A CASE REPORT

¹Veera kumara K, ²Vishnu Priya Seetharam, ³Shrividya B.N¹Associate professor, ²Post graduate Scholar, ³Assistant ProfessorCorresponding Author: vishnupriyaseetharam@gmail.com<https://doi.org/10.46607/iamj4910122022>

(Published Online: December 2022)

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Article Received: 30/11/2022 - Peer Reviewed: 07/12/2022 - Accepted for Publication: 20/12/2022



ABSTRACT

Multiple system atrophy (MSA) is an Adult-onset multisystem neurodegenerative fatal disease of undermined etiology and is one among the set of disorders included in parkinsonism. This article explores the case report of a patient diagnosed with MSA treated with the treatment modalities mentioned in Ayurveda. Though the diseases are not fully curable, the signs and symptoms significantly improved after the treatment and the patient had a good quality of life.

Aim- To manage the multiple system atrophy in the patient with Ayurvedic intervention.

Methodology – A combination of external and internal therapies was adopted for the patient for a span of 14 days

Results- Significant improvement was noted in the signs and symptoms of the condition.

Conclusion – *Masthishka Apachaya* though is considered *yapya* if the disease has not affected the whole of *Masthishka*. This case was treated with the modalities mentioned under the disease context in the classics and found effective in the improvement of the general health status of the patient.

Keywords: *Masthishka Apachaya*, Multiple system Atrophy, *Rasayana*

INTRODUCTION

Parkinsonism is a disorder that is associated with slowness and reduction of voluntary movements and is characterized by muscular rigidity and tremor.

Multiple system atrophy can be defined as the adult-onset, sporadic, rapidly progressive, multi-system neurodegenerative fatal disease of undetermined

aetiology, characterized by cerebellar, autonomic, Uro - genital dysfunction, and cortico-spinal disorders¹. The prevalence of MSA is reported to be between 3.4 – 4.9 cases per 100000 population. This affects men more than women with a female-to-male ratio of around 1:2. The mean age at onset is 52.5 to 55 years and has a poor prognosis². MSA-affected individuals are reported to have cell loss/gliosis in many sites, including the caudate nuclei and intermediolateral columns of the thoracic and which are sympathetic neurons in the cord. The marked defect in the adrenergic function of the brain along with loss of dopamine makes them rarely respond to Levodopa³. Ayurveda explains a disorder with similar presenting features in the geriatric population that causes atrophy of *Mashtishka*. This *Mashtishka Apachaya* leads to many features like *Shira Atibhrama*, *Murcha*, *Pakshanasha*, *Balahani*, and finally *Mrutyu*⁴. Similarly, some other references in the classics direct this disease towards the *Majja pradoshaja Vikara* with features like the *Parvaruk*, *Bhrama*, *Murcha*, *Murcha*, *Tama darshana*, *Arumshi*, and *Sthoolamoolanam*⁵. The treatments that are planned for these sets of disorders are with *Ra-*

sayana, *Bruhmana dravya*, *Laghu*, and *Deha poshana Annapana* to be administered⁶.

Main Complaint: The patient complained of loss of balance while walking and also frequent falls in the past 1 year and six months.

Associated complaint: Slurred speech and difficulty in swallowing food from the past 1 year.

History of main complaint: A 73-year-old married man who was apparently well before 1 year suddenly fell on the ground following an episode of giddiness. There was no episode of excess perspiration, chest pain, vomiting, or prior headache. He was immediately rushed to the nearby hospital and had raised Blood pressure on evaluation of vitals. He was immediately managed with the medications. Later he had some speech disturbances which went unnoticed by the relatives. Recently the relatives started noticing the weakness of the body and the loss of balance while walking.

History of past illness: No history of past illness.

Personal History: Appetite-less, Diet- Vegetarian, Bowels- Regular, Sleep- Disturbed, Micturition- Passes 4 to 5 years per day, Habits- Nil

Table No.1: Higher Mental Functions

Higher mental function	Observation
Consciousness	Fully conscious
Orientation	Intact to time, place, and person
Memory	Immediate, recent, and report memory- Intact
Hallucination and delusions	Absent
Speech disturbance	Slurred speech
Handedness	Right

Table No. 2: Examination of Cranial nerves

Cranial Nerve	Observation
Olfactory Nerve	Intact
Optic Nerve, Oculomotor, Trochlear, Abducens Nerve	Intact
Trigeminal Nerve	Sensory- Intact Clenching of teeth - Possible Jaw jerk – Present Clenching of teeth - Possible Jaw jerk – Present
Facial Nerve	Eye Blink – Possible

	Eyebrow Raise – Possible Blowing of Cheeks – possible Clenching teeth – Possible
Vestibulocochlear Nerve	Tinnitus: Absent Vertigo: Present Weber’s test: Both sides heard, BC > AC Rinne’s test -Heard more on the left side Romberg’s (sign) – both sides heard
Glossopharyngeal Nerve, Vagus Nerve	Dysarthria – Absent Dysphonia – Absent Uvula – centrally Placed Gag reflex - Present
Spinal accessory Nerve	Sternocleidomastoids – Intact strength Trapezius – Intact Strength
Hypoglossal Nerve	Tongue deviation - absent Speech -Slurred Swallow -Difficulty to swallow Tongue tenderness - Absent

Table No. 3: Motor system Examination

Motor System	Observation
Attitude of limbs	Normal
Nutrition	Good
Tone	Hypotonic
Power	Intact
Coordination	Reduced coordination
Involuntary movements	Absent

Sensory Examination revealed normal findings except for alteration in the Hot and cold sensation.

Reflexes

- Superficial Reflexes – Normal findings
- Deep Reflexes – Altered

Cerebellum Examination

- Dysmetria – Absent
- Titubation – Mildly present
- Nystagmus - Absent
- Speech – slurred and explosive
- Hypotonia – Present
- Rebound phenomenon – Absent
- Dysdiadochokinesis – Possible
- Finger – Nose test – Deviation on touch of the finger
- Knee heel test – Possible to Perform

- Pendular Knee Jerk – Absent
- Tandem walking – Not possible
- Swaying – Present

Autonomic Nervous System

- Sweating – Reduced
- Pupil – Normal reactions noted to light
- Postural hypo tension – Present
- Hand grip test with BP cuff – Reduced

Investigations:

MRI brain – Thinning of the brainstem (pons and medulla oblongata) with a prominence of the prepontine cistern and fourth ventricle. Hot cross bun sign present in pons on T2 weighted image. Diffuse widening of folia in cerebellar hemispheres and vermis. Thinning of both cerebellar peduncles. Widened Sub Arachnoid spaces and sulci in both cerebral hemispheres - moderate corticle atrophy. Thinning of Substantia nigra. Chronic lacunar infracts were seen in

the pons, bilateral thalami, and capsulo-ganglionic regions.

Hematological Investigations:

HB - 30 gm %, WBC - 5,500cells/cu.mm, Neutrophils - 40%, Lymphocytes - 46 %, Eosinophils - 8%, Monocytes - 5%, Basophils - 0%, ESR - 30 mm/hr, RBS - 102 mg/dL, Serum creatinine - 0.76 mg/dL

Treatment

External Therapies:

- 1) *Sarvanga Abhyanga* with *Ksheerabala taila* followed by *Nadi sweda*
- 2) *Tailadhara* with *Murchita tila taila*.
- 3) *Matra vasti* with *Dhanwantari taila* for 7 days

Internal Medications:

- 1) *Ekanga veera rasa* 1-1-1
- 2) *Cap laksha* 2-2-2
- 3) Tab *Chadrprabha* DS 1-1-1
- 4) *Saraswatharishta* 4tsp-4tsp-4tsp

DISCUSSION

Ayurveda considers multiple system atrophy features under the *Mashtishka Apachaya* which occurs in the elderly population. If the whole *Mashtishka* is involved then the disease is *Asadhya*, if partially affected Acharya explains that it can be managed with the use of *Rasayana*, *Bruhmana*, *Laghu*, and *Deha Poshana Annapana*. Considering these theoretical points, a treatment plan was initiated for this patient including both external and internal therapies. *Abhyanga* does the *Mardavata* of the body, *Kapha vata nirodha*, provides the *Dhatu pushti*, and also *Balaprada*. Dalhanna comments that by 900 *Matrakala* of *Abhyanga* the *Sneha* used reaches the *Majja* through the *Sira Mukha* and pacifies *Vata-pitta*, and *Kapha*⁷. The application of *Taila* on the *Shiras* helps to remove the *Shiroroga* and does the *Santarpana* of the *Indriya*, removes the *Shira Shoonyata*, and does the *mastishka Puna purana*⁸. The *Nadisweda* with *Dashamoola* with the virtue of the *Vatanashaka* and *Ama pachana* properties might have helped in the reduction of the features like the *Parvaruk* and *Balahani*⁹. *Matrabasti* is one type of *Anuvasana Basti* that does not cause any *Upadrava*. Considering the person's age Acharya explains the Utility of *Matrabasti*

to one who is *Durbala* and affected by *Vata Vyadhi* and aids in the *Dhatu-Poshana*¹⁰. *Ekangaveera rasa* possessing many *Rasayana*, *Bruhmana*, and *Medhya* drugs might have helped in the management of this *vyadhi*. *Laksha* is considered to be *Balya*, and this helped in the regaining of *Bala* of the patient¹¹. *Chandrprabha vati* helpful in the normalising of *Vata*, *Pitta*, and *Kapha* is also considered to be a good *Rasayana* by virtue of which it helps in rejuvenating the depleting, *Dhatu*¹². This medication possesses the *Dravyas* that help in tackling the *Netraro-ga*, *Mutraghata*, and *Anaha* which were the associated complaints in the patient. *Saraswatharishta* is a good *Medhya* and helps in the alleviation of *Nidranasha* in the patient.

CONCLUSION

Masthishka apachaya though is considered *yapya* if the disease has not affected the whole of *Masthishka*. This case was treated with the modalities mentioned under the disease context in the classics and found effective in the improvement of the general health status of the patient.

Patient perspective- The patient was fully satisfied with the overall improvement in the symptoms and was able to carry on the daily routines as usual.

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Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Veera kumara K et al: Ayurvedic Approach to Multiple System Atrophy: A Case Report. International Ayurvedic Medical Journal {online} 2022 {cited December 2022} Available from: http://www.iamj.in/posts/images/upload/3542_3546.pdf