

A CASE OF SENSORY ATAXIA AND ITS MANAGEMENT THROUGH PANCHAKARMA

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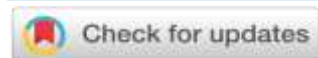
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ABSTRACT

Sensory ataxia is both a symptom and a sign in neurology. It is a form of ataxia (loss of coordination) caused not by cerebellar dysfunction but by loss of sensory input into the control of movement. Sensory ataxia is distinguished from cerebellar ataxia by the presence of near-normal coordination when the patient visually observes the movement but marked worsening of coordination when the eyes are shut, indicating a positive Romberg's sign. Sensory ataxia also lacks the associated features of cerebellar ataxia, such as pendular tendon reflexes, scanning dysarthria, nystagmus and broken pursuit eye movements. Sensory ataxia can manifest in sensory large fibre peripheral neuropathies and conditions causing dysfunction of the spinal cord's dorsal columns due to various disorders: infectious, auto-immune, metabolic, toxic, vascular and hereditary diseases. There is no direct correlation to sensory ataxia in *Ayurvedic* classics; based on pathology, it is nearer to *Kaphavrita vyana vata*.

Objectives--By considering sensory ataxia as *Kaphavrita vyana vata*, the present study has attempted to evaluate the efficiency of *Ayurvedic* formulation in the conservative management of sensory ataxia. **Met hod**--A case of sensory ataxia, initially patient was treated with *Dashamoola kaya seka* followed by *Shastika shalipindasweda*, followed by *Balavarnakara niruha basti*¹ and *Anuvasana basti* with *ksheera bala taila* as per *Kala Basti* schedule (modified), followed by *Shaman aushadhi*. **Result**--Patient was observed for symptomatic improvement based on the questionnaire over graded signs & symptoms, also observed for clinical examination before & after treatment. **Conclusion**: The study has shown that conservative management of sensory ataxia can be managed effectively through the *Ayurvedic* principle and improve quality of life.

Keywords: Sensory ataxia, Ayurveda, Panchakarma, Kaphavruta vyana vata, Basti karma

INTRODUCTION

Sensory ataxia is a form of ataxia caused by the impairment of the somatosensory nerves, leading to the interruption of sensory feedback signals². It is characterised by postural instability and lack of coordination, which worsen when visual input is removed. SA is caused by interference in the sensory transmission to the cerebellum caused by a lesion. It is sensory damage due to loss of connection between the cerebellum and spinal cord and lack of proprioceptive information.

In *Ayurveda*, there is no direct correlation for sensory ataxia. Based on pathology, it can be understood under kaphavruta vyana vata

Gatisanga and shareera graha are the lakshanas of impaired functioning of vyana vata. Symptoms such as dourbalya, gatisanga, and gurugatrata are seen in kaphavruta vyana. Hence, based on the clinical symptoms and the pathology involved, a diagnosis of kaphavruta vyana can be considered and treated accordingly.

Here, we present a case of sensory ataxia treated through panchakarma, and significant results are obtained.

MATERIALS AND METHODS

CASE REPORT-

A Male patient of age 38 years came to the hospital with c/o imbalance while walking, associated with heaviness in b/l upper and lower limb for one year. He has been k/c/o hypertension for one year but n/k/c/o DM. While doing his routine activities one day, he experienced the abovementioned complaint. Soon after 4months, he noticed reduced strength in the bilateral upper and lower limbs with difficulty walking without support. There was no history of falls or trauma before the appearance of the symptoms. For this complaint, he was admitted to NIMHANS Bangalore for five days and found no relief for further management; he was admitted to GAMC Bangalore.

Habits – chronic alcoholism – 20 years stopped in the last year, smoking – for ten years stopped for one year.

PAST HISTORY-

N/k/c/o - DM, Thyroid dysfunction, IHD.

H/o alcohol - 20years, h/o smoking-10years

PHYSICAL FINDINGS: Shown in table no. 01.

Table no 01: SHOWING PHYSICAL FINDINGS

Gait		Walk with support (walker)		
Higher mental function		Intact, well-oriented to time, place, and person		
Cranial nerves		Within normal limits		
Sen				
Motor system	Limb attitude	Left upper limb - adducted and flexed. Right upper limb and lower limb- NAD		
	Muscle power		Right	Left
Upper limb		3/5	3/5	
Lower limb		3/5	3/5	
Reflexes	Biceps	++	++	
	Triceps	++	++	
	Knee	++	++	
	Ankle	++	++	
	Plantar	Flexor		Flexor
		Flexor		Flexor

Sensory system	Touch, pain, temperature	Intact
	joint proprioception- upper limb	Intact
	Lower limb	Impaired
	Vibration	Intact

COORDINATION

ROMBERGS TEST	POSITIVE – PT CAN STAND UP TO 10SEC
DYSMETRIA	POSSIBLE WITH SLIGHT IMPAIRMENT
HEEL-TO-SHIN TEST	POSSIBLE
DYSDIADOKOKINESIA	POSSIBLE
DYSARTHRIA	ABSENT
NYSTAGMUS	ABSENT

BERG BALANCE SCALE

		SCORE (0-4)
1	SITTING TO STANDING	2
2	STANDING UNSUPPORTED	4
3	SITTING UNSUPPORTED	3
4	STANDING TO SITTING	3
5	TRANSFERS	1
6	STANDING WITH EYES CLOSED	3
7	STANDING WITH FEET TOGETHER	3
8	REACHING FORWARD WITH AN OUTSTRETCHED ARM	2
9	RETRIEVING OBJECTS FROM THE FLOOR	1
10	TURNING TO LOOK BEHIND	2
11	TURNING 360 DEGREES	2
12	PLACING THE ALTERNATE FOOT IN FRONT	0
13	STANDING WITH ONE FOOT IN FRONT	3
14	STANDING ON ONE FOOT	1
	0-20= PT LIKELY NEEDS THE ASSISTANCE OF A WHEELCHAIR 21-40 = NEEDS WALKING ASSISTANCE SUCH AS A CANE OR WALKER 41-56= INDEPENDENT MOVES SAFELY WITHOUT ASSISTANCE	TOTAL-30

DASHAVIDHA PAREEKSHA: Shown in table no. 02.

TABLE NO. 02: SHOWING DASHAVIDHA PAREEKSHA

Prakriti	Vata kapha
Vikriti	Kapha vata
Sara	Madhyama
Samhanana	Susamhita
Satmya	Madhura pradhana sarvarasa
Satva	Madhyama
Vyayama shakti	Avara
Ahara Shakti	Madhyama

Pramana	Madhyama
Vaya	Madhyama

NIDANA PANCHAKA, SHOWN IN TABLE NO. 03

TABLE NO 03: SHOWING NIDANA PANCHAKA

Nidana	Vishamaashana, Vegadharana, Chinta, Dadhi sevana at night, nitya madya sevana
Poorva Rupa	Avyakta
Rupa	Cheshta hani, gatisanga with gourava
Upashaya & Anupashaya	Nothing specific

SAMPRATI GHATAKA: Shown in table no. 04.

TABLE NO 04: SHOWING SAMPRAPTI GHATAKA

Dosha	Kapha vata
Dushya	Rasa, Rakta, Mamsa, Majja
Agni	Jataraagni, Dhatwagni
Agni dhushti	Mandagni
Srotras	Rasavaha, Mamsavaha
Srotodushti	Sanga
Udhhavastana	Pakwashaya
Sancharastana	Sarvashareera
Vyaktastana	Sarvashareera
Adhistana	Shiras
Rogamarga	Madhyama
Sadhyaasadhyata	Krichra sadhya

TREATMENT PROTOCOL ADOPTED: Shown in table no. 05.

A comprehensive treatment plan was employed, involving both Panchakarma procedures and the administration of oral medications.

Table no 05: SHOWING TREATMENT PROTOCOL ADOPTED.

Treatment	Duration
Sarvanga dashamoola pariseka	5 days
Sarvanga abhyanga with ksheerabala taila followed by shastika shali pinda sweda	14 days
Koshta Shodhana	1 day
Balavarnakara basti	Kala basti pattern
Total no. of days	30

KALA BASTI SCHEDULE: Shown in table no.6.

DAY	1	2	3	4	5	6	7	8	9	10
MORN.		N	N	N	N	N	N			
EVEN.	A	A	A	A	A	A	A	A	A	A

BALAVARNAKARA BASTI	DOSAGE
Makshika	50ml

Saindhava lavana	10gm
Sneha – Murchita ghrita	80ml
Satapushpa + ashwaganda Kalka	20gm
Kwatha – Balamula ksheerapaka	350ml
	Total = 510ml

ANUVASANA BASTI with KSHEERA BALA TAILA – 70ml

ASSESSMENT (BEFORE AND AFTER TREATMENT): Shown in table no. 07.

TABLE NO 07:

Domain name	before the treatment	Score after the treatment
Gait	Walk with support (walker)	Walk without support
Romberg test	Positive – can stand upto 10sec	Positive – can stand up to 35– 40sec
Proprioception - lower limb	Slightly delayed	Intact
Muscle power	3/5 in 4limbs	4/5
Coordination – dysmetria	Impaired	Intact
BBS scale	30	45

DISCUSSION

The disease sensory ataxia, which can be understood as kaphavrita vyana vata, manifests due to margavarana, further leading to dhatukshaya. In cases where margavarana is involved, its removal becomes the primary focus of management, so rukshana, followed by brahmana, is the line of treatment adopted for this case.

Dashamoola pariseka:

- Any disease that manifests is due to either Sama or Nirama Avastha. Rukshana line of treatment mainly helps in manage Sama into Nirama Avastha. Rukshana treatment has more effect on Kapha, Medhaja Vyadhi, Ama, and Avarana conditions. The warm medicated liquid is poured over the whole body (Sarva Shareera) or
- affected part in a uniform stream the procedure is called Seka or Pariseka
- Hence, the initial treatment approach involves Seka for five days.
- Dashamoola mainly has Laghu, Ruksha Guna, Ushna Virya, Shula, Sothahara and Tridoshagna properties, acting as Rukshana.

Shastika shali pinda sweda:

- It is a type of bahya sweda and maha sweda, which results in vasodilation and increases blood flow to the affected site. Thus, it helps revert the pathology. It consists of go dugdha, shastika shali and balamulakwatha churna, which acts as vata-hara and brumhana and strengthens the surrounding muscle tissue and nourishes the nervous system; in this case, shastika shali pinda sweda done for 14 days which increased tissue extensibility and thus helped in increasing the range of movement.

Basti:

- In *vatavyadhi chikitsa*, *basti* is significant as it possesses a wide spectrum of action and is hence considered *Ardha Chikitsa*³.
- When administered, *Basti* reaches the *pakwashaya*, the main seat of *vata* dosha and from there, its *veerya* spreads throughout the entire body⁴.
- *Balavarnakara bastis* are *siddha basti*, explained in Charaka Samhita Uttara basti siddhi adhyaya. They contain madhu, ghrita, taila, saindhava, and shatapushpa as their key ingredients. They are classified as *Vrushya Basti*, *siddha basti*, *Madhutailika Basti*, *Vataghna Basti*, *rasayana basti*, and *Bruhmana Basti*.

- The most significant composition of both the basti is madhu. *Madhu is madhura kashaya rasatmaka, sukshma gunatmaka, vajeekaraka, tridoshahara dravya*⁵.
- *Saindhava is ushna, teekshna, sukshma, tridoshahara, deepana, vrushya gunatmaka dravya*⁶.
- *Murchita ghrita possesses properties like madhura rasa, balavardhana, kanthya, vrushya, and vata. pittahara, rasayana, pushtikara etc gunas*⁷.
- Ksheerabala taila – balya, tridoshahara, and brahmana in nature help strengthen the body.
- *Shatapushpa is madhura rasa, katu-tiktanurasa yukta teekshna, ushna viryatmaka, kapha-vata. nashaka, bruhmana, balya, pushtikarai, agnivardhaka, vrushya dravya*⁸.
- *Balamoola—madhura rasa, sheeta virya, tridoshahara—helps strengthen the body and boost immunity.*
- With the right composition of these above-mentioned ingredients, the administered basti renders the effects of rasayana, vajeekarana balya, and bruhmana vata-hara karma.

CONCLUSION

Sensory ataxia is a form of ataxia that causes impairment of the somatosensory nerves, and it has no permanent cure. Treatment focuses on stopping the progress of nerve damage, alleviating symptoms, increasing independence, and minimising the risk of falls. This can be achieved through panchakarma after analysing the dosha and dushya involved, thus providing better living conditions for the patient.

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