ISSN 2456-3110
Vol 9 · Issue 11
November 2024

JAiMS
INTERNATIONAL

Journal of Ayurveda and Integrated Medical Sciences

www.jaims.in

JAIMS

An International Journal for Researches in Ayurveda and Allied Sciences

Maharshi Charaka
Ayurveda

Indexed

Journal of
Ayurveda and Integrated Medical Sciences
ISSN 2456-3110
CASE REPORT November 2024

Ayurvedic management of Vascular Parkinsonism: A Case Report

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ABSTRACT

Introduction: Vascular parkinsonism (VP) is a distinct clinicopathological entity from idiopathic Parkinson's disease, which is presumably caused by cerebrovascular disease. It is characterized by predominant lower body parkinsonism, postural instability, shuffling or freezing gait, absence of rest tremors, absence or poor response to dopamine, and the presence of corticospinal tract signs. **Methodology:** A 62-year-old male patient was admitted to the Panchakarma IPD of VAC, Ollur complaining of tremors in the hands (left > right), weakness in the left hand, slowness in activities and speech, memory loss, swaying while walking, and pain over the left shoulder joint for the past 10 months. On examination, extrapyramidal signs were positive. He underwent a treatment protocol for *Vatavyadhi*, including *Udvarthanam, Dhanyamladhara, Sirodhara, Vasthi,* and *Shastika Sali Pinda Sweda,* along with *Samanoushadis*, for a period of 26 days, which yielded better results in the condition. **Result:** patient assessment was conducted using the Modified Hoehn and Yahr scale, Schwab and England ADL scale, and PDQ-39 scale on the 1st and 26th days. After the treatment, there was a notable amelioration of symptoms, a reduction in disability, and an enhancement in overall quality of life.

Key words: *Vascular parkinsonism, Kampavatha, Quality of life, Case report.*

INTRODUCTION

Parkinsonism is a broad term referring to various neurodegenerative diseases that manifest with motor symptoms such as bradykinesia with rigidity and / or tremor. Parkinson's disease accounts for 80% of cases, while the reminder comprises a collection of other neurodegenerative disorders with similar motor symptoms. Secondary parkinsonism can be associated with stroke, drugs, tumor, infections, or exposure to toxins such as carbon dioxide and manganese.[1] Vascular parkinsonism (VP) is a distinct clinicopathological entity from Idiopathic Parkinson's disease, that is presumably caused by cerebrovascular disease. It accounts for 4.4%-12% of all cases of parkinsonism.[2] VP is characterized by predominant lower body parkinsonism, postural instability, shuffling or freezing gait, absence of rest tremors, absence or poor response to dopamine, and presence of corticospinal tract signs.[2] The main pathological lesions that underlie VP include lacunes, subcortical white matter lesions and, rarely, territorial infarcts.[3] MRI of the brain is a useful morphological test to evaluate vascular lesions.

The presentation of the disease is comparable to *Kampavatha* with *Pakshakhatha*. Among *Vataja Nanatmaja Vyadhi Caraka* as mentioned *Kampavata*, while other Acharyas explain the same as *Vepathu. Madhava Nidana* explained as *Vepathu* is characterized by *Sarvanga Kampa* and *Shiro Kampa*.[4] In *Basavarajeeyam*, the symptoms of *Kampavata* offer

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Submission Date: 12/10/2024 Accepted Date: 25/11/2024

Access this article online

Quick Response Code

Website: www.jaims.in

DOI: 10.21760/jaims.9.11.51

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a diagnostic hint for Parkinson's disease, which is characterized by symptoms such as *Karapadatale Kampa, Deha Bhramana, Mathiksheena* and *Nidrabhanga.*[5]

In this instance, the patient had took medications for 1 month for addressing Parkinsonian symptoms. Despite the administration of this medication, the patient continued to experience challenges in performing routine daily activities. While admitted to Vaidyaratnam Ayurveda college hospital (VACH), ayurvedic treatment was initiated with a primary focus on restoring the balance of disturbed *doshas, ama Pachana, Agnideepana, Vathanulomanana, Srothoshodana, Brahmana, Balya* and *Dhathusatmyakara Chikitsa*. The goal of these interventions is to enhance the patient's quality of life and mitigate the progression of the disease.

Case Report

A 62-year-old male patient was admitted to VAC Hospital on May 2, 2024. He had been on allopathic medication for hypertension and dyslipidemia for the past 2 years and had a history of ischemic stroke in July 2022. He complained of tremors in his hands (left > right), weakness in the left hand, slowness in activities and speech, memory loss, swaying while walking, pain over the left shoulder joint, and irregular and constipated bowel movements. The complaints had started gradually 10 months ago, initially as weakness in the left upper limb and fine tremors in the left hand. After a few weeks, tremors also developed in his right hand. The tremor was most noticeable during activities like wearing shirts, buttoning shirts, and wearing a dhoti. The tremors were more evident when the patient became anxious. Gradually, he began to experience slowness in his movements and speech, swaying while walking, and slurring and monotony in his speech, which became more pronounced over the past 4 months. During this period, family members also noticed recent memory loss. He also complained of left shoulder joint pain, which followed a road traffic accident (RTA) in February 2023. He underwent Ayurvedic inpatient management for 14 days but did not experience any relief. In March 2024, he consulted an allopathic doctor for the aforementioned complaints, was diagnosed with Parkinsonism, and was advised to take internal medications. However, even after 1 month, the patient did not feel any improvement and consulted the same doctor again. He was advised to take T. Syndopa 110 mg for 2 weeks, but the patient discontinued the medication after 2 days due to dizziness he experienced after taking it.

Psychosocial history

Mood and emotion: anxiety present

Cognitive function

Memory: recent memory impaired

Attention, executive function, language: present

Psychiatric history - no pre-existing psychiatric conditions, such as bipolar disorders, schizophrenia, or past episodes of major depressive disorders.

Psychosocial functioning - Social withdrawal is present (withdrawal from social interactions)

Socioeconomic status - lower-middle-class family[6]

Family history

Father had similar complaints (tremors in hands, slowness of activities, and difficulty in walking)

Personal history

He had a mixed diet, preferably take cold water. Bowel was Irregular and constipated, 1 time / 3-4 days, for last 4 months mostly once in a week. Micturition was normal and sleep was sound.

Treatment history

T. Atorvastatin 1-0-0, T. Cilovin ½-0-0, T. Ecosprin 75/20 mg 1-0-0

Clinical Findings

General examination

The patient was lean in built, moderately nourished with a height of 157.5, weight of 46kg and BMI of 18.5 kg/m^2. The patient was anxious, had a stooped posture, festinant gait with reduced arm swing.

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Physical examination

Head and neck: stooped head, a subtle flattening of the left nasolabial fold, and angle of mouth had slightly deviated to the right side.

Systemic examination

On systemic examination nervous system and locomotor system are affected.

Nervous system examination:

Higher mental function - patient was right handed person with slightly slurred speech, oriented to time, place and person; patient displayed symptoms of anxiety, accompanied by intact immediate and remote memory and, while recent memory showed impairment.

Cranial nerve examination - On examination of the facial nerve, there was subtle flattening of the left nasolabial fold, with the angle of the mouth slightly deviated to the right side. The wrinkles on the forehead were present, and the patient could distinguish all tastes.

Motor system examination - Tone was hypertonic, bilateral rigidity of muscle was evident in both upper and lower limb (Lt> rt) with a preserved muscle power on right upper limb and both the lower limbs, while the power was only 4+ in left upper limb. Muscle bulk was symmetrical in both side in upper and lower limb, although there was a reduction in hand grip on left side. Superficial and deep reflexes within the normal limits.

Sensory system examination - revealed no abnormalities.

Cerebellar signs - Ataxia, hypotonia, and nystagmus were absent.

The patient had intentional tremors, and buttoning and the finger-to-nose test were possible, although accompanied by slowness and tremors. During tandem walking swaying was observed. Rhomberg's sign yielded a positive result. Extrapyramidal sign including bradykinesia, muscular rigidity, festinating gait, glabellar tap and monotony in speech were present. On examination, the patient showed difficulty with finger tapping and opening and closing the fist due to bradykinesia. While assessing the tremor, the patient exhibited postural and akinetic tremors. Upon assessing rigidity, the patient was able to rotate his wrist and passively flex and extend the elbow.

Locomotor symptoms

The affected area is the left shoulder joint. On inspection, symmetry was maintained, the position of the scapula was symmetrical on both sides, there was no muscle wasting or winging of the scapula, and swelling was absent. On palpation, grade 1 tenderness over left shoulder joint and muscle spasm over left shoulder joint. Examination of range of movements and special test were done (table 1 & 2 respectively)

Table 1: Examination of range of movements

Movements	Range of movements	
	Rt	Lt
Flexion	140°	50°
Extension	45°	25°
Adduction	30°	20°
Abduction	150°	40°
External rotation (modified)	70°	Can't elicited due to pain
Internal rotation (modified)	60°	

Table 2: Special test of shoulder

	Right shoulder	Left shoulder
Painful arc test	Negative	Positive at 60°
Drop arm test	Negative	Positive
Empty can test	Negative	Positive
Hawkins Kennedy test	Negative	Can't elicited due to pain
Neer test	Negative	Can't elicited due to pain

Diagnostic Assessment

MRI Brain (24/04/24) revealed mild age-appropriate generalized involutional and few chronic small vessel ischemic changes. No acute infarct or bleed seen.

MRI Brain (11/07/22) during the admission of stroke revealed chronic infarcts noted in the periventricular

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white matter. Multiple discrete scattered T2 / FLAIR hyperintensities noted involving the deep white matter and pons without any evidence of diffusion restriction suggestive of small vessel ischemic changes. Age related atrophy and right maxillary sinusitis.

According to Zijlmans' diagnostic criteria[2] (criteria for the clinical diagnosis of vascular parkinsonism) the patient was diagnosed with vascular parkinsonism with insidious onset.

Ayurvedic diagnostic parameters

- *Prakrithi - Kapha Vatha*[7]
- *Dosha* vitiated - *Vyana Vatha, Samana Vatha, Apana Vatha, Udana Vatha, Prana Vatha, Pachaka Pitha, Sadhaka Pitha, Sleshaka Kapha*
- *Dhathu - Rasa, Raktha, Medas, Majja*
- *Upadhathu - Snayu, Sira*
- *Mala - Purisha*
- *Sara - Madhyamam*
- *Satwam - Avaram*
- *Samhananam - Madhyamam*
- *Satmyam - Sarvarasa Satmya*
- *Pramanam - Madhyamam*
- *Aharasakthi - Abhyavaharana Sakthi - Avaram*
- *Jaranasakthi - Avaram*
- *Vaya - Vardhakya*
- *Kalam - Kshanadi - Greeshmam*
- *Vyadhi Avastha - Navam*
- *Desam - Bhoomi - Sadaranam*
- *Deham - Sarvadehikam*
- *Rogamargam - Madhyamam*
- *Srothas* affected - *Rasavaha, Rakthavha, Medovaha, Majjavaha, Annavaha, Pureeshavaha*

Nidana Panchaka

The exact causative factors for this disease were unknown, the most probable predisposing factors in the patient include *Seethajalapana, Kshutvegadharana,* anxiety and *Jara. Poorvaroopa* was *Avyaktha,* while the *Roopa* exhibits tremors in his hands (left > right), weakness in the left hand, slowness in activities and speech, memory loss, swaying while walking, pain over the left shoulder joint, and irregular and constipated bowel movements. *Samprapti* refers to the complete procedure of disease manifestation. *Kampa* is specifically mentioned under *Vataja Nanatmaja Vikara*. Therefore, the *Samprapti* of *Kampavata* is not mentioned separately. The general *Samprapti* of *Vatavyadhi* can be considered as the *Samprapti* of *Kampavata.* The patient had a long history of *Agnimandya,* which increased the likelihood of *ama* formation in the body, leading to the formation of *Sanga* at the *Srotas.* Additionally, the patient continued to be exposed to the aforementioned *Nidanas*, which could have caused *Vata Prakopa*. This, in turn, resulted in *Dhatvavishamya (Rasa, Raktha, Medas, Majja),* ultimately leading to *Dhatukshaya.* The *Dhatukshaya* further aggravated *Vata,* causing *Sthanasamsraya* in the *Snayu, Sira,* and *Siromarma*, which led to the manifestation of symptoms in the patient. The case was diagnosed as Vascular parkinsonism with insidious onset. In Ayurveda, the diagnosis was identified as *Kampavatha* with *Pakshakhatha.*

Diagnosis

Kampavatha with *Pakshaghata* (Vascular parkinsonism with insidious onset)

Therapeutic Intervention

Treatment is mainly concentrated on improving the quality of life of the patient by reducing the clinical symptoms. Detailed descriptions of internal medicine and external procedures administered are provided in Tables 3 and 4

Table 3: Internal medicine

Date	Medicine	Dose	Anupana	Time
02/05/24-27/05/24	*Padoladi Kashayam*	15ml + 45ml luke	-	Twice daily, before food

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		warm water		
02/05/24 -27/05/24	*Varuni Tailam*	10 drops	With milk	Twice daily, after food
02/05/24 -15/05/24	*Vaiswanara Choornam*	1tsp	With hot water	Twice daily, before food
02/05/24 -27/05/24	*Mandoora Vatakam*	1tab		Twice daily, after food

Table 4: External treatment

Date	Procedure	Medicine / remarks
03/05/24 – 06/05/24	*Udvarthanam*	*Kolakulathadi Choornam*
07/05/24 – 13/05/24	*Dhanyamladhara*	Lightness of the body, rigidity of upper limb slightly reduced.
12/05, 16/05, 18/05	*Yapana vasthi*	*Masha Atmaguptadi*
14/05/24 – 20/05/24	*Abyangam* and *Sirodhara*	*Maha Masha Tailam*
21/05/24- 27/05/24	*Shastikashali Pinda Sweda*	*Mahamasha Tailam*
21/05, 23/5, 25/05	*Matravasthi*	*Pippalyadi Anuvasana Tailam*

Results

Patient assessment was conducted using Modified Hoen and Yahe scale,[8] Schwab and England scale,[9] and PDQ 39 (Parkinson's disease quality of life questionnaire).[10] Assessments were done on 03/05/2024 and 26/05/2024 (before treatment and after treatment)

Assessment tool	Pre-treatment	Post treatment
Modified Hoen and Yahe scale	Score 2.5	Score 2
Schwab and England scale	80%	90%
PDQ 39		
Mobility	35%	20%
Activity of daily living	37.5%	20.83%
Emotional well being	20.83%	16.66%
Stigma	43.75%	18.75%
Social support	0%	0%
Cognition	12.5%	12.5%
Communication	33.33%	8.3%
Bodily discomfort	33.33%	8.3%
PDQ 39 SI	28.84%	15.38%

Discussion

As the aging process progresses, there is a significant and exponential increase in *Vata dosha*. As a result, the elderly are at a higher risk of developing *Vatavyadhi*. The main contributing factors to *Vatavyadhi* are *Dhatukshaya* (tissue depletion) and *Margavarana* (obstruction of channels). In Basavarajeeyam, *Kampavata* presents with symptoms such as *Karapadatale Kampe, Deha Brahmana, Nidrabhanga,* and *Mathiksheena*, all of which are consistent with classical *Vataja Lakshanas*. In this case instead of *Avarana, Dhathukshaya* was the major cause for *Vatha* vitiation.

In the pathophysiology of Vascular parkinsonism, the disease is presumably caused by cerebrovascular disease. In Ayurveda *Grandas, Virechana* is regarded as the primary treatment protocol for *Pakshaghata*. Based on this principle, internal medications are recommended for the patient.

Padoladi Kashayam is *Vatanulomana, Amapachanam,* and *Agni Vardhanam*. Most of the drugs in the stipulated *Yoga* are having *Tiktha* and *Kashaya Rasa, Tiktha Rasa* works on *Amasaya* and helps in *Amapachana*, finally improve *Agni* and helps in *Srothosudhi*.[11] *Vaiswanara Choorna* corrects *Apanavayu* by the *Anulomana* effect of *Hareethaki*, which is in higher quantity. The *Apanavayu* correction in turn corrects the *Samana Vayu*, which in turn

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improves the digestive fire of the patient. The *Deepana* effect of the yoga again improves the *Agni* of the patient.[12] *Varuni Tailam* is the yoga explained in *Sarngadhra Samhitha*, it only possess 2 ingredients, *Indravaruni* also called bitter fruit (which is *Thiktha Pradhana*) and *Tilataila Nitya Anulomana* is recommended for this kind of patients because abnormal protein accumulation and aggravation is one of the strong causative factors for the pathology of this neurogenerative disorder. As Vasular parkinsonism is a neurodegenerative disease and its pathology starts in the brain, the medicine has to act on the brain cells. According to *Ashtangam Hridayam*, *Thiktha Rasa* has *Medhya* property (improves intellect) and also has the potency to act on *Majja Dhatu* (marrow element), whereas according to Chakrapani, brain is considered as the *Majja Dhatu* of *Siras* (*Masthulunga majja*). *Udvarthanam* has *Sthairyakara* property which enhances the motor functions. *Dhanyamladhara* is a procedure explained in renowned treatise of traditional kerala ayurveda, *Chikitsa Manjari* which recommends *Dhanyamladhara* as first line of therapy in *Pakshakhatha*, advised in done in *Vathavyadhi* associated with *Ama, Pitha* and *Kapha.*[13]

Being a *Vatavyadhi, Vasti* has got the prime role. The main aim of *Niruhavasti* is to impart Dosha *Samanatva*. *Mashaatmagupthadi Yapana Vasthi* was selected. *Masha Atmaguptadi Kashaya* is specifically indicated for *Kampavata* in *Chakradatta*. *Sirodhara* and *abhyanga* were done with *maha Mashatailam*, which is indicated for *Hasthakampa, Sirakampa*, and specifically indicated for *Urdhajatrugadas. Shirodhara* is a type of *Murdhani Taila* and it is found to have an anxiolytic and tranquilizing effects resulting into a kind of relaxation response. It calms down the hyper action of vitiated *Vyana Vata* and *Sirodhara* shows significant result in the *Kampa*.[14] *Shastikasalipinda Sweda* is *Snigdha,Guru, Seetha* and *Brihmana. Matravasti* with *Pippalyadi Anuvasana Tailam* helps to relieve the *Rookshatha* of *Koshta* and helps in *Malapravrithi.*

Conclusion

The incorporation of Ayurvedic treatment procedures demonstrated a notable amelioration of symptoms, reduction in disability and an enhancement in the overall quality of life. Quality of life scale PDQ-39 SI score was improved from 28.84% to 15.38%.

References

1. Jameson J, Fauci A, Kasper D, Hauser S, Longo D, Loscalzo J. Harrison's Principles of Internal Medicine. 20th ed. Vol. 1. New York: McGraw Hill Medical Publishing Division; 2018. p. 3120–3132.
2. Udagedara TB, Dhananjalee Alahakoon AM, Goonaratna IK. Vascular Parkinsonism: A review on management updates. Ann Indian Acad Neurol. 2019;22(1):17–20.
3. Korczyn AD. Vascular parkinsonism: Characteristics, pathogenesis, and treatment. Nat Rev Neurol. 2015 Jun;11(6):319–26.
4. Srikantha Murthy KR. Madhava Nidanam (Roga Vinshaya) of Madhavakara. 2016 ed. Varanasi: Chaukhambha Orientalia; p. 88.
5. Krishnamurthy MS. Basavarajeeyam: A Reputed Text of Ayurvedic Therapeutics and Pharmaceutics Codified by Vaidya Shree Basavaraja. 1st ed. Vol. Chapter 6. Varanasi: Chaukhambha Orientalia; 2014. p. 148.
6. Modified Kuppuswamy socioeconomic scale 2023: Stratification and updates. ResearchGate [Internet]. 2024 Oct 22 [cited 2024 Nov 27]; Available from: https://www.researchgate.net/publication/375145135_Modified_Kuppuswamy_socioeconomic_scale_2023_stratification_and_updates
7. MA, SK B. Development of a clinically useful tool for Prakriti assessment. Int J Ayurvedic Med. 2021 Sep 29;12(3):599–609.
8. Hoehn and Yahr Scale. Physiopedia [Internet]. [cited 2024 Nov 28]. Available from: https://www.physio-pedia.com/Hoehn_and_Yahr_Scale
9. Veterans Affairs. VA.gov [Internet]. [cited 2024 Nov 28]. Available from: https://www.parkinsons.va.gov/resources/se.asp
10. Final PDQ-39 English UK SAMPLE. Parkinson's UK [Internet]. [cited 2024 Nov 28]. Available from: https://www.parkinsons.org.uk/sites/default/files/2020-12/Final%20PDQ-39_English_UK_SAMPLE.pdf
11. Kumar S, NK, CRK. A study on the efficacy of Patoladi Kashaya and Karanjadi Lepa in Vicharchika W.S.R. to eczema. AYUSHDHARA [Internet]. 2016 [cited 2024 Nov

ISSN: 2456-3110 CASE REPORT November 2024

28]; Available from: https://ayushdhara.in/index.php/ayushdhara/article/view/118

12. Research Paper. JETIR2303774. JETIR [Internet]. [cited 2024 Nov 28]. Available from: https://www.jetir.org/papers/JETIR2303774.pdf
13. Jose JV, M ST, K AV. Management of rigidity dominant Parkinson's disease through Ayurvedic protocol. Int J Ayurveda Pharma Res. 2024 May 4;57–64.
14. Kumar MP. A review of the role of Panchakarma in Parkinson's disease.

How to cite this article: Nanditha N, PKV Anand, PV Giri. Ayurvedic management of Vascular Parkinsonism: A Case Report. J Ayurveda Integr Med Sci 2024;11:343-349.
http://dx.doi.org/10.21760/jaims.9.11.51

Source of Support: Nil, **Conflict of Interest:** None declared.

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