

**A SINGLE CASE STUDY ON AYURVEDIC MANAGEMENT OF PARKINSON DISEASE (KAMPAVATA)**

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**ABSTRACT**

Parkinson’s disease (PD) is the most common form of a group of progressive neurodegenerative disorders characterized by bradykinesia, rest tremor, muscular rigidity, shuffling gait, and flexed posture. disorders for which no clear description is found in Ayurvedic texts. However the diseases, *vepathu* and *Kampa Vata* simulate with the Parkinson’s disease. According to some Ayurvedic experts *Kampa* (tremor), *Sthambha* (rigidity), *Chesta sanga* (bradykinesia), *Vakgraha* (dysphasia), and *Smriti ksaya* (dementia) are the cardinal features of *kampaVata*.<sup>[1]</sup> It is most common extra pyramidal crippling disease with a prevalence of 1% of total population. More than 50% of patients with PD treated over 5 years with Levodopa will develop complications such as motor fluctuations and dyskinesia’s. In spite of advancement in the field of medicine, treatment of Parkinson’s disease remained highly symptomatic. No curative treatment is available. This case study is about management of known case of Parkinson’s disease with multimodality treatment in the form of *Panchkarma* procedures.

**KEYWORDS:** *Chesta sanga* (bradykinesia), *Vakgraha* (dysphasia), and *Smriti ksaya* (dementia).

**INTRODUCTION**

*Kampavata* is one among the *Vata vyadhis*, that was first described under the name of *Vepathu* having similar symptoms as that of *Kampavata*.<sup>[2]</sup> The symptoms include *Karapadatala kampa* (~tremors in hands and legs), *Deha bhramana* (~postural instability), *Nidrabhanga* (~insomnia) and *Matiksheena* (~dementia). Other symptoms similar to *Vata vyadhi* like *Stambha* (~rigidity), *Chestahani* (~slowness of the movement), *Vinamana* (~stooped posture), *Vaak vikriti* (~speech disorders) also can be seen in this condition.<sup>[3]</sup>

In *Charaka samhita*, *Sirokampa* (head tremor) is enlisted as one among the important *Sirorogas* (diseases of head) like *Ardita* or *Ardhavabhedak* (facial palsy). *Sirokampa* caused by vitiation of *Vata*, due to aggravation of *Ruksha guna* (ununctuous property) is explained.<sup>[4]</sup> In the text *Basavarajiya*, a separate disease with the nomenclature

as *kampaVata* (tremor due to vitiation of *Vata*) has been referred and different varieties of *kampa* (tremor) have been explained as *kakaVata* (disease of *Vata* as in crow) and *Bahukampa Vata* (extreme tremor).<sup>[5]</sup>

Parkinson disease is a neurodegenerative disorder characterized by the loss of dopaminergic neurons in the substantia nigra of the brain. Although PD isn’t fatal, it is progressive and incurable Even with medications, symptoms vary in incidence, severity, and timing from person to person day to day. It is characterized by the symptoms such as Tremor (shaking usually starts on one side of the body, often in the hand or finger), Rigidity stiffness where the limbs feel like lead), Bradikinesia (difficulty in initiating movement and slowness of movement). Posture, *Vaak vikriti* (~speech disorders) also can be seen in this condition.<sup>[6]</sup>

Motor symptoms	Non motor symptoms
<ul style="list-style-type: none"> <li>• Tremor</li> <li>• bradykinesia</li> <li>• rigidity/freezing in place</li> <li>• lack of facial expression</li> <li>• postural instability</li> <li>• stooped, shuffling gait</li> </ul>	<ul style="list-style-type: none"> <li>• diminished sense of smell</li> <li>• low voice volume</li> <li>• sleep disturbance</li> <li>• depression</li> <li>• constipation</li> <li>• drooling</li> </ul>

**STAGES PD**

Stage 0- no signs of disease

Stage 1- unilateral disease

Stage 1.5 – unilateral with axial involvement

Stage 2- bilateral disease with imbalance

Stage 3- Mild to moderate bilateral disease, some postural instability; physically dependent

Stage 4 - Severe disability; still able to walk or stand unassisted

Stage 5- Wheelchair-bound or bedridden

Acharya Charaka has stressed on *Srotoshuddhi*, *Vatanulomana* and *Rasayana* in general management of *Avarana*. Since this is a case of *Kapha avarana*; the same treatment modalities can be applied.<sup>[7]</sup> *Vangasena* has clearly mentioned the treatment of *Kampavata* as *Swedana*, *Abhyanga*, *Basti*, *Virechana* and *Shamana*.<sup>[8]</sup> Besides, *Kampavata* being a *Vatavyadhi*; general line of management for *Vatavyadhi* also can be applied for the management.

*Ayurveda* takes a unique approach to the management of above mentioned neuropathies with a special emphasis on eliminating their cause by *Panchkarma*. *Panchkarma* procedures are especially advocated in the treatment of neurological diseases. Different types of *Snehana*, *Swedana* are efficacious. Besides a special treatment like *Shirobasti*, *Shirodhara*, *Nasya* and *Basti karma* are indicated in such diseases.

Now a day's patients of Parkinson's disease are opting for *Ayurveda* management due to the long term complications of Levodopa and other medications. No satisfactory treatment is seen in contemporary system of medicine. So a multi-modality treatment in the form of *Panchkarma* procedures is selected for Parkinson's disease by giving satisfactory results in the treatment of disease. *Kampavata* correlated with Parkinson's disease which is *Dhatukshyaja*, *Vatavydhi*, and *Apatarpana* in nature. Hence the principle of treatment is *Santarpana Chikitsa*. *Panchkarma* procedures have been taken for the study.

**CASE REPORT**

A 45 year male patient came to OPD with complaints of Pain in left knee joint and left shoulder joint, since 4years. Involuntary moments in the bilateral hand and foot, since 1.5years. Tendency to fall forward and

difficulty in walking and Slowness of movements since 1 year. Patient also having associated complaints like Difficulty in passing motion (constipated) since 1 year. Fear to converse with the people since 6 months. Reduced sleep since 3 months.

**HISTORY**

Patient was said to be healthy 1.5 years back, one fine day while going back home on his bike he noticed involuntary movements in his left hands and foot. Somehow he managed and reached home. As involuntary movements were increasing with the time patient has consulted Multi specialty hospital, There MRI Brain plain, cervical spine and CT spine cervical were done and prescribed medications (Pramipex 1.5mg) and sent back. Patient has spent money but did not observed improvements in his complaints.

Then after a month patient went to another hospital, there they prescribed him Tab syndopa and Tab Parkin. Patient got moderate relief from tremors but had developed head ache, Postural imbalance and constipation. Patient was on regular follow ups to the Hospital, when he discontinued the tablets the tremors were relapsing and increasing.

**EXAMINATIONS****CENTRAL NERVOUS SYSTEM**

Higher mental function - intact

Memory -recent -not affected

remote - not affected

Intelligence - Intact

Hallucination - Auditory some times

Speech disturbance - Present (Slowness in speech)

Cranial Nerve Examination- no abnormality found

Sensory system

Superficial

a) Touch - Intact

b) Temperature - Intact

c) Pain - Intact

Deep

a) Crude touch -Present

b) Position Sense & Pressure sense -Present

**Motor system**

Attitude of limbs

Upper limb: Semi flexed elbows

Lower limb: Mild bent knees

**Muscle Bulk**

	Right (in inches)	Left (in inches)
<b>Upper limb</b>		
Arm	10.5	10.5
Forearm	7	7
<b>Lower limb</b>		
Thigh	17	17
Calf	9	9

**Coordination**

Upper limb- Finger nose test- Able to perform  
 Lower limb-Knee heel test - (Brydikinasea)  
 Involuntary movements- Present  
 Right hand and leg Medium Resting Tremor  
 Left hand and leg - present

**Gait**

- Step length is medium.
- Heel strike is absent
- Left Arm swing is absent
- Mild stooped posture
- Turns with no loss of balance
- Mild shuffling gait

**Reflex}**

Superficial

- Corneal - Normal
- Abdominal-Normal
- Plantar - Normal

Deep

- Biceps jerk - Rt and Lt hyper reflex
- Triceps jerk -- Rt and Lt hyper reflex
- Supinator jerk - - Rt and Lt hyper reflex
- Knee jerk - Rt and Lt hyper reflex

e) Ankle jerk - Rt and Lt hyper reflex  
 "PULL" Test – Positive

**INVESTIGATIONS**

- MRI Brain plain (5/2/2018)
- Impression- No Acute Intracranial findings.
- MRI – Cervical spine -Impression - Multilevel degenerative disc disease and posterior element hypertrophy causing central canal and neural foraminal stenosis.

CT- SPINE CERVICAL (5/2/2018)

Impression –

C4-5. 4mm } postero-central and  
 C5-6. 5mm } paracentral protrusion  
 C6-7. 3mm } causing mild to moderate central canal stenosis.

**Internal medication**

Tab – Bruhat vata chintamani 1-0-1 AF

Aswgandharista 3tsp bd

Kapikachu churna 1 tsp OD with milk

Gandharva hastayadi taila 15 ml with 100 ml lukewarm milk bed time in night.

Treatment modalities	Duration	Improvements
Sarvanga ABHYANGA with Ksheerabala taila f/b Patra pinda sweda	7 days	Rigidity reduction by 30% Relaxation.
Himasagara taila Shiropichu	7 days	Improvement in sleep Reduction in fear factor by 30%
Nasya Karma with Mahakalyanaka Ghrita 8 bindu each Nostril	7 days	Reduction in tremors, head ache by 20%

**SECOND COURSE**

Treatment modalities	Duration	Improvements
Sarvanga Abhayanga with Ksheera bala Taila f/b Sarvanga Shashtikashali Pinda Sweda.	7 DAYS	Relaxation Generalized strength improvement by 50% Rigidity reduction by 50%
Shirobasti With Ksheera bala taila	7 DAYS	Sound sleep Reduction in fear factor by 30%
Matra basti with Maha masha taila 75ml	7 DAYS	Patient feeling relaxed. Tremor reduction by 50 % Regular bowel moments

Advise on discharge

- Danadanayadi kashayam 20 ml before food morning and evening
- Abhyanga with Mahamasha taila.
- Mahakalyanaka Ghrita 4tsp – shamana sneha.
- Ashwagandha Churna -3grms + 3grms
- Kapikachu Churna -with milk
- Tab – Bruhat vata chintamani -1-0-1

After the completion of the procedures, there was significant improvement found in patient after

*Panchkarma* procedures and administration of formulations.

- Tremors markedly abolished.
- Improvement is seen in walking without any aid. Improvement is seen in ADL (Activities of Daily Living), as told by the patient. Speech was also improved Rigidity was markedly improved after completion of treatment.
- Patient was able to sleep for 7-8hrs daily. Marked improvement in facial expression

**Assessment of bradykinesia** was done by applying the following tests:

- 1) Picking of pins with Hands
- 2) Buttoning time
- 3) Marie sign (Blink rate/min)
- 4) Rapid alternating movements
- 5) Chest expansion
- 6) Walking time.

1. Picking of pins with hands

The patient was asked to pick up the head pins one by one and keep away until the all hundred pins do collected. This test was performed by the patients first by their right hand and then their left hand separately. The time taken by the patient for this job was noted before and after the treatment.

2. Buttoning time: - Patient was requested to fix five buttons. Average time required to fasten one button was noted in seconds.

3. Marie sign: - Blinking per minute was counted before and after the treatment.

Rapid alternating- movements: Patient was asked to carry out three repetitive movements:

- a. Repeatedly by touching index finger with thumb.
- b. Opening and closing of fists.
- c. Pronation and Supination of hands.

d. **Chest expansion**

The degree of expansion of chest was measured by placing the tape measure. Just below the nipples with its zero mark at the middle of sternum and instructing the patient to take deep breath in and out of as deep as possible. The difference of expansions in and between inspiration and expiration was noted. This test was carried out and after the treatment.

Sr. No	Sign and Symptoms	B. T.	A.T.
1	<i>Kampa</i> (Tremor)	B/L Tremor in lower limbs	Unilateral Slight Tremor Present at rest decreased by action and increase by emotion.
2	<i>Gatisanga</i> (Bradykinesia)	Can walk without assistance slowly but with shuffling gait	Can walk brisk without aid
3	<i>Stambha</i> (Rigidity)	Cog wheel Rigidity	Markedly improved
4	<i>Vakvikriti</i> (Disturbance of Voice)	Slurring of Speech	Markedly improved
5	Sleep	Disturbed Sleep	Normal Sleep
6	Facial expression	None	Markedly improved

## DISCUSSION

*Kampavata* is *Nanatmaja* disorder of *Vata* as per *Ayurveda* texts condition can be correlated with *Dhatukshya vatavyadhi* as well as *Vata* vitiated due to *Avarana*.<sup>[5]</sup> *Ayurveda* treatment for this condition is mainly based on the treatment of unbalanced *Vata*. *Ayurveda* provides such patient with its miraculous treatment of *Panchkarma* and *Shamana Chikitsa*. In *Kampavata Avarana* of *Vata* and *Dhatukshaya* are the chief pathological processes. *Charaka* has stressed on *Srotoshuddhi*, *Vatanulomana* and *Rasayana* in general management of *Avarana*.

For the first time *Vangasena Samhita*, stated the principles of the treatment of *Kampavata*. It clearly mentioned that, *Abhyanga*, *Swedana*, *Nasya*, *Niruha*, *Anuvasana*, *Virechana* and *Shirobasti* are the useful measures that can increase the life expectancy of the patient.

The signs and symptoms of *Dhatukshaya* *vatavyadhi* mentioned in *Ayurveda* texts resembles with the problems of neurodegenerative disorder present in modern ideology.

After the completion of the procedures, there was significant improvement found in patient after *Panchkarma* procedures and administration of

formulations Tremors markedly abolished. Improvement is seen in walking without any aid. Improvement is seen in ADL (Activities of Daily Living), as told by the patient. Speech was also improved Rigidity was markedly improved after completion of treatment. Patient was able to sleep for 7-8hrs daily. Marked improvement in facial expression.

History taking and exploring the *Nidanas* will make the better understanding of *Samprapti* manifested in the patient and further guide us to plan the treatment.

General awareness should be created among people regarding these preventive aspects of various *panchakarma* modalities and must be included in daily practice.

## REFERANCES

1. *Charaka Samhita*: - Agnivesh Revised by Chakra and Dridhabala, Vidyotini Hindi Commentary by pt. Kashinathshastri and Dr. Gorakh Nath Chaturvedi - 13th edition, Chaukhambha Sanskrit series Varanasi, 1986.
2. *Charaka Samhita*: - Agnivesh Revised by Chakra and Dridhabala, Vidyotini Hindi Commentary by pt. Kashinathshastri and Dr. Gorakh Nath Chaturvedi - 13th edition, Chaukhambha Sanskrit series Varanasi, 1986.

3. Basavarajaacharya. Basavarajeeyam; Chaukambha publications, 2005.
4. Charaka Samhita: - Charaka Samhita with English translation of Chakrapani commentary. By Bhagwan das, Chhaukhambha Sanskrit series, Varanasi.
5. Basavarajaacharya. Basavarajeeyam; Chaukambha publications, 2005.
6. De Long MR, Juncos JL. Harrison's principles of internal medicine – 17<sup>th</sup> edition.
7. Charaka Samhita: - Charaka Samhita with English translation of Chakrapani commentary. By Bhagwan das, Chhaukhambha Sanskrit series, Varanasi.