



Case Study

AYURVEDA IN THE MANAGEMENT OF NEURODEGENERATIVE DISORDER, *KAMPAVATA* WSR
PARKINSONISM: A CASE REPORT

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ABSTRACT

Parkinson's disease is a chronic progressive neurodegenerative disorder of CNS affecting the motor system, with increasing frequency in nearly 1% of the population older than 60 years of age. Affects men more frequently than women. The symptoms start insidiously and tend to be unilateral or asymmetrical at the onset. The initial manifestations may be tremor, slowness, clumsiness of an arm or leg. Tremors, rigidity, akinesia and postural disturbances are the major clinical abnormalities. Clinical features may include mask face, slurred & indistinct speech, festinant gait, stooped posture, resting tremors, rigidity (cogwheel or lead pipe). Based on the symptoms like *Kampa*, *Stambha*, *Chestasanga*, *Vakvikriti* it can be correlated to *Kampavata* which is mentioned under *Vataja Nanathmaja Vyadhi*. Application of Ayurvedic principles on the pathology involved, reveals a distinct vitiation of *Vata dosha* along with vitiation of *Udana* and *Vyana vayu*. The current paper is the case report of a 45 year old female patient presenting with complaints of tremors of both hands aggravate at rest, slow body movements and activities, decreased handwriting size, swaying while walking since 1 year. The case was diagnosed as Parkinson's disease based on clinical manifestations and neurological examination. A multimodality treatment in the form of *Panchakarma* therapies including *Basti*, *Shirovasti*, *Nasya* along with *Samana oushadhis* for a period of 33 days yields a better result in this condition. The condition of the patient improved with gradual course of treatment. The assessment was done before and after treatment and during follow up using Hoehn and Yahr scale and Unified Parkinson's Disease Rating Scale. Follow up with *Samana oushadhis* are given for 1 month. Hoehn and Yahr scale changes to stage 3 after 15 days from stage 4 and changed to 2.5 after treatment. Unified Parkinson's Disease Rating Scale was reduced from 39 to 19. During follow up period also the values remained the same.

INTRODUCTION

Parkinson's disease, described by James Parkinson in 1817, as the "Shaking Palsy" is a chronic progressive disorder occurring in the CNS, resulting from the degeneration of dopamine producing cells in the substantia nigra characterized by rigidity, bradykinesia, resting tremor and postural instability. Nearly 1% of the populations older than 60 years of age are most commonly affected. Men are more prone than women.

The symptoms start insidiously and tend to be unilateral or asymmetrical at the onset. The first clinical sign occurs when about 60% of the dopamine producing cells in the substantia nigra have degenerated^[1]. The cause of disease remains uncertain but it is likely to be due to a combination of genetic risk factors and environmental agents. Tremors, rigidity, akinesia and postural disturbances are the major clinical abnormalities. Clinical features may include mask face, slurred & indistinct speech, festinant gait, stooped posture, resting tremors, rigidity (cogwheel or lead pipe). The non-motor symptoms are of crucial importance since they have a major impact on quality of life.

In Ayurveda, Parkinsonism can be correlated to *Kampavata* based on clinical manifestations. *Kampavata* is described under *Vataja nanatmaja*

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vyadhi by the name *Vepathu* by Acharya Charaka^[2]. *Kampa vata* is described first by Acharya Madhavakara by the name *Vepathu*.^[3] A more detailed diagnostic approach with illustration for the first time is provided by *Basavarajeeyam* with explaining the symptoms of *Kampavata* as *Karapadathalakampa* (upper and lower limb tremors), *Sthambha* (rigidity), *Chestasanga* (bradykinesia and akinesia), *Vakvikruthi* (disturbance in speech)^[4]. By analysing the *Dosha* predominance, *Kampavata* can be a *Kapha avrutha vata* condition. The symptoms like *Kampa* and *Nidranasha* can be due to *Vata prakopa*, *Stambha* due to *Kapha vata prakopa*, *Gatisanga* and *Chestanasha* due to *Kapha avrutha vyana vayu* and *Swara sangha* due to *Kapha avrutha udana vayu*. In *Kampavata*, *Avarana* of *Vata* and *Dhathukshaya* are the chief pathological processes. There are depletion of *Rakta dhathu* and *Avarana* of *Prana*, *Vyana* and *Udana vata*. Acharya Charaka has mentioned *Asthapana vasti* for *Vepana*.^[5] Charaka has stressed on *Srothoshuddhi*, *Vatanulomana* and *Rasayana* in the general management of *Avarana*. *Vangasena* has clearly mentioned the treatment of *Kampavata* as *Swedana*, *Abhyanga*, *Anuvasana vasti*, *Niruha vasti*, *Virechana* and *Shamana oushadhi*.^[6]

CASE REPORT

A 45 year old female patient came to the OPD with complaints of tremors of both hands aggravate at rest, slow body movements and activities, decreased handwriting size, swaying while walking since 1 year. History of the patient revealed that before 4 months, the patient gradually developed tremor on right hand and noticed a decrease in the size of hand writing. But she neglected the symptoms. After 3 months, the tremors used to aggravate at rest and was absent during movements. Then gradually the tremors developed in both hands. Since 1 year, she developed slow body movements and activities, decreased handwriting size, swaying while walking. She noticed difficulty in performing the household activities and also she was working as a teacher where she found difficulty in taking classes for the children. Consulted an allopathic physician and the case was diagnosed as Parkinson's Disease stage 4. Took medications like *Syndopa tab* for 2 months. Then she stopped taking the tablet as she felt weakness of body. Gradually the

complaints were aggravated and started affecting her day to day activities in a worst manner than before.

Past History: No H/O DM, HTN or trauma or any other major medical illness.

Family History: No history of same illness in any of the family members.

General Examination

Weight: 47kg

Height: 4.9ft

Pulse rate: 78/min

Heart rate: 78/min

Respiratory rate: 18/min

Temperature: 37°C

Blood pressure: 120/80mmHg

Personal History

Appetite: Normal

Sleep: Normal

Diet: Mixed

Habits: Nil

Bowel: Regular

Addiction: Nil

Micturition: Normal

Allergy: Nil

Blood Investigations

Hb - 11.2 g/dl

ESR - 32mm at 1st hr

All other values were in the normal range.

Systemic Examination

Gastro Intestinal System- Soft abdomen, no tenderness and organomegaly was found.

Respiratory system- Symmetrical chest, no added sound.

Cardio Vascular Examination- s1, s2 was normal, no murmur was found.

Locomotor examination- Patient was unable to walk properly without support.

CNS Examination

Higher mental function- Intact, well oriented to time, place and person and conscious.

Cranial nerve examination- Intact

Sensory system- Intact

Motor system:

Muscle movements coordination- Poor

Romberg sign- Normal

Knee heel test- Normal

Finger to nose test- Unable to do because of tremors

Involuntary movements- Resting tremors were present

Table 1: Ashta Sthana Pareeksha

Nadi	Vataja	Drik	Samanya
Mala	Anavabadha	Shabdha	Ksheena
Mutra	Samanya	Sparsha	Khara
Jihwa	Anupaliptha	Akruthi	Krishna

Diagnosis

The case was diagnosed as *Kampavata* (Parkinson's disease stage 4) based on clinical manifestations and neurological examination.

MATERIALS AND METHODS

Patient was admitted in IPD and given *Samana oushadis* along with *Panchakarma* therapy for 33 days.

Intervention

Table 2: Shamana Chikitsa

S.No.	Shamana oushadhas	Observations
1.	<ul style="list-style-type: none"> • <i>Kalyanakam kashayam</i> 15ml bd B/F • <i>Mashatmaguptadi ksheera kashayam</i> 60ml bd B/F • <i>Shadharanam gulika</i> 1 bd B/F • <i>T. Kapikachu</i> 1 bd B/F • <i>Brihat vatachintamani rasa</i> 1 bd A/F • <i>Bhoonaga tailam</i> 10 drops with milk • <i>Samana snehapanam</i> for 21 days after discharge with <i>Rasnadasmoola ghritham+Dhanwantaram tailam 101 Avarthi</i> 	Weakness reduced Intensity of resting tremors reduced and swaying while walking has reduced. Slowness in body movements along with tremors were markedly reduced Handwriting become normal

Table 3: Shodhana Chikitsa

S.No	Panchakarma therapies	Observations
1.	<i>Udwartana</i> with <i>Kolakulathadi choornam</i> for 5 days	
2.	<i>Abhyangam + Ushma sweda</i> with <i>Mahanarayana tailam</i> for 3 days	Weakness of body reduced
3.	<i>Patra pinda swedam</i> with <i>Mahanarayana tailam</i> for 3 days	Balance while walking attained
4.	<i>Virechana</i> with <i>Nirgundi eranda tailam</i> 30ml for 1 day	
5.	<i>Mashatmaguptadi ksheera vasti</i> for 7 days <i>Mashatmaguptadi ksheera kashayam</i> – 240ml <i>Rasnadasamoola ghritham</i> – 120 ml <i>Dhanwantharam tailam</i> – 120ml Honey – 120ml	Marked reduction in tremors of hands
6.	<i>Ksheeradhoma + Nasyam</i> with <i>Rasnadasamoola ghritham</i> 3ml each nostril	Resting tremors reduced
7.	<i>Shirovasti</i> with <i>Mahanarayana tailam</i> for 7 days	Swaying while walking, resting tremors, tremors while writing were markedly reduced

Total duration of treatment – 33 days

Assessment Criteria

Assessment was done both before and after treatment and also during a follow up period of 1 month using Hoehn and Yahr scale and Unified Parkinson’s Disease Rating Scale.

RESULT

The condition of the patient improved with gradual course of treatment. Following tables shows the improvement.

Table 4: Result of Improvement Before and After Treatment

S.No.	Parameters	BT	AT
1.	Tremors	Resting tremors on B/L hands	Intensity of resting tremors reduced markedly
2.	Body movements	Slow	Slightly improved
3.	Walking	Swaying while walking present	Attained balance on walking
4.	Handwriting	Decrease in size of letters were noticed	Became normal

The patient showed improvement in the symptoms. Hoehn and Yahr scale changes to stage 3 after 15 days from stage 4 and changed to 2.5 after treatment. Parkinson’s disease composite scale was reduced from 39 to 19. During follow up period also the values remained the same.

Table 5: Hoehn and Yahr Scale

BT	AT
Stage 4	Stage 2.5

Table 6: Unified Parkinson's Disease Rating Scale

BT	AT
Score 39S	Score 19

DISCUSSION

As *Kampavata* is a *Vatavyadhi*, which is a progressive neurological disorder due to impairment in *Chala guna* of *Vata*, so that *Vathahara* treatment should be adopted both externally and internally. When *Vata* is vitiated at its peak level, it tends to deplete all *Dhathus*, *Pitta* and *Kapha dosha*, immunity and life span of an individual. So removal of *Srothodushthi*, *Vata shamana*, *Vatanulomana* should be the treatment principle. The main line of treatment was to pacify *Vata* by *Vata hara chikitsa* and to remove *Kapaha avarana* by *Deepana pachana chikitsa*. Line of treatment must be from removing *Avarana* to *Shodhana* followed by *Shamana* to pacify *Vikrutha vata*.

The symptoms like *Kampa* can be due to *Vata prakopa*, *Stambha* due to *Kapha vata prakopa*, *Gatisanga & Chestanasha* due to *Kapha avrutha vyana vayu*. As it is *Kapha avrutha vata* condition, *Rookshana* therapy like *Udwarthana* has been done first for removing the *Kapha avarana*. Moreover being a *Vataja nanathmaja Vyadhi*, *Snehana* therapies like *Abhyanga*, *Patra pinda sweda*, *Virechana*, *Ksheera vasti*, *Nasya*, *Shirovasti* were done.

Kapikachu tablet was given as it has shown the evidence of presence of dopamine content. *Mashathmagupatadi ksheera kashayam* specially indicated for *Kampavata* is given. *Kalyanakam kashayam*, mentioned in *Ashtanga Hridaya* has special indication in most nervous disorders, hence proving its action at CNS level. *Maha Narayana tailam* is selected for *Abhyanga* and *Shirovasti* as it is favourable for all types of *Vathika* diseases. Moreover *Nasya* and *Shirovasti* procedures have exploration at CNS level as it crosses blood brain barrier. *Nasya* with *Rasna dasamoola ghritha* which is specially indicated for *Sirakampa* is selected which yielded a better result. *Mashatmagupthadi ksheera kashayam* indicated by Chakradatta especially for *Kampavata* is selected for *Pana* and also for *Ksheera vasti*. For *Ksheera vasti*, *Rasna dasmoola ghritha* and *Dhanwantaram tailam* were used. Later a *Samana snehapanam* with *Rasnadasammola ghritham* with *Dhanwantaram taila 101 Avarthi* was given during the follow up period

which helps to retain the improvement in the symptoms in the follow up period too.

CONCLUSION

Ayurveda, the art of science of life has an inevitable role in almost every field especially in degenerative disorders. It can create miracles because of ability of evacuation, superiority of efficacy and enormity of procedures to target *Dosha* eradication. Based on clinical signs and symptoms, Parkinson's disease can be correlated with *Kampavata*. Ayurvedic oral medications and *Panchakarma* therapies are found to be more beneficial in this condition. Even though a complete cure is not possible in these neurodegenerative diseases, it can be a ray of hope for patients by improving their quality of life so as to manage their day to day activities.

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