



## INTEGRATED APPROACH OF AYURVED AND YOGA IN PARKINSONISM (KAMPAVATA); A CASE REPORT

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### ABSTRACT

Parkinson's disease is one of the commonest diseases in senility. It is a long-term degenerative disorder of central nervous system affecting the motor system. Its symptoms resemble the symptoms of *Kampavata* as per Ayurveda. *Kampavata* is basically a *Vataja* disease which should be treated with *Brumhana Chikitsa*. Yogic interventions like *Asana* and *Pranayama* have found out to be very effective in the treatment of Parkinson's disease. The present case study is of a 62-year-old female patient of Parkinsonism with the complaints of *Sarvanga Kampa* (tremors), more in head, neck and bilateral hands, swaying while walking but able to walk with support, difficulty in performing daily activities like eating food, drinking water etc. low back pain, bilateral leg pain, heaviness in body with generalised weakness for 6 months. The patient was treated with *Shaman* treatment as well as *Brumhana Chikitsa* of *Basti*, *Nasya* and *Murdhni Taila*. Yogic interventions included *Asanas* like *Vrukshasana*, *Tadasana*, *Garudasana* and *Utkatasana* and *Pranayama* like *Omkar* Chanting and *Bhramari Pranayama*. There was a drastic improvement in the results of patient. The Hoehn and Yahr Scale improved from 3 to 2.5 and Berg's Balance Scale improved from 48 to 53. Other subjective symptoms like shuffling gait and slurred speech also improved. Thus, it was concluded that the combined therapy of Ayurveda and Yoga can effectively treat Parkinson's disease.

**Keywords:** Parkinson's disease, Kampavata, Yoga, Ayurveda, Brumhana

## INTRODUCTION

Parkinson's disease (PD) is a progressive neurologic disorder affecting the motor system. The disease onset is in mid-fifties with the symptoms like tremors, rigidity, bradykinesia, and postural instability<sup>[1]</sup>. The disease features impairment of resting muscle tone and voluntary movement, because of loss of striatal dopamine in the nigrostriatal dopamine pathway<sup>[2]</sup>. It is estimated that there are 5 million people all over the world suffering from this disease<sup>[3]</sup>. The treatment modalities include medications like L-DOPA, dopamine antagonists, and surgery. *Vepathu* is included among 80 *Nanatmaja Vyadhis* of *Vata Dosha*<sup>[4]</sup>. *Kampavata* has symptoms like *Karapadataala Kampa* (~upper & lower limb tremors), *Stambha* (~rigidity), *Dehabhramana* (~Postural instability), *Nidrabhanga* (~sleep disturbances), *Chetasanga* (~bradykinesia & akinesia), *Matiksheena* (~Dementia) and *Vakvikruti* (~speech disturbance) which has a close resemblance to PD. *Vangasena* for the first time has stated the principles of the treatment of *Kampavata* which includes *Abhyanga*, *Swedana*, *Nasya*, *Niruha*, *Anuvasana*, *Virechana*, and *Shirobasti* measures that can increase the life expectancy of the patient<sup>[5]</sup>.

### Patient information:

A 62-year-old female resident of Nagpur presented to the OPD of Swasthivritta and Yog (OPD no. 29357) in Government Ayurved College, Nagpur (28/09/2021) with the complaints of *Sarvanga Kampa* (~tremors), more in the head, neck, and bilateral hands, swaying while walking but able to walk with support, difficulty in performing daily activities like eating food, drinking water, etc. low back pain, bilateral leg pain, heaviness in body with generalised weakness since 6 months.

### H/O Present illness:

The patient was asymptomatic before 6 months. There was a gradual start of tremors in the upper extremities and rigidity in movements. The tremors used to aggravate at rest and were absent during movements. She then started noticing hard stools with incomplete bowel evacuation and disturbed sleep. The patient being a housewife, neglected all

these symptoms. For the past 1 month, the patient is complaining about disturbed walking and reduced movements, difficulty in performing daily activities like eating food, drinking water, etc. The patient was aware of Ayurveda treatment. So directly moved on to the Ayurvedic treatment at our OPD for further management.

H/o Past Illness:

K/C/O: HTN – for 3 years.

Medicinal and family history revealed nothing.

No H/o any surgical intervention.

### Hetu (~Preceding Factors):

- Betel nut (After meal)
- Frequent washing of clothes and utensils with cold water
- *Atichinta* (~Excessive thinking)

### Examinations:

Pulse-72/ min

B.P- 130/80 mmHg

Weight – 57 kg

Height – 5”2’

Motor examination – 5/5 muscle power in all 4 limbs, both precision and power of hand were good.

Deep tendon reflexes (biceps, triceps, brachioradialis, quadriceps, and tendo-achilles) - diminished.

There was a mild nonvelocity-dependent increase in the muscle tone which could be graded as 1+ in MAS.

Sensory functions (peripheral and higher cortical) - normal.

Co-ordination tests (equilibrium and non-equilibrium) – negative.

The subject demonstrated an independent gait and impaired walking pattern with mild features of festination. There was a reciprocal arm swing while walking.

### Materials and Methods:

Diagnosis of patient done based upon clinical features. Written informed consent was obtained from the patient to participate in the trial. The trial was designed as a 4-week Ayurvedic treatment and Yogic training program.

### Diagnostic assessment:

1. Hoehn and Yahr Scale <sup>[6]</sup>
2. Berg's Balance Scale <sup>[7]</sup>

**INTERVENTION:**

The patient was provided with *Shaman* (table 1), *Shodhan* (table 2), and Yogic treatment (table 3) since day 1. He was instructed in the basic guidelines of Yoga.

**Table 01: Shaman Chikitsa**

Intervention	Dose	Anupana	Kala	Duration
<i>Goghruta + Khan-dasharkara</i>	5 ml	-	<i>Rasayan Kala</i> (~Early morning)	Day 1 – Day 30
<i>Krounchbeeja Churna + Bala + Ashwagandha Ksheerpaka</i> (50ml)	2 gm each	<i>Ghruta – 5 ml</i>	Morning – 9 am Evening – 5 pm	Day 1 – Day 30
<i>Yograja Guggulu</i>	5 gm -2 tab	<i>Maharasnadi Kwath</i>	<i>Vyanodane</i> (~After food)	Day 1 – Day 30
<i>Goghruta</i>	5 gm	<i>Ushna Jala</i>	<i>Apan Kale</i> (~Before food)	Day 1 – Day 30

**Table 02: Shodhan Chikitsa:**

Intervention	Medicine	Duration
<i>Sarvanga Snehana</i> (~External olotion)	<i>Tila Taila</i>	Day 1 – Day 14
<i>Sarvanga Swedana</i> (Steam)	<i>Dashmoola Kwath</i>	Day 1 – Day 14
<i>Matra Basti</i> (~Medicated oil enema)	<i>Tila Taila</i> (20ml) + <i>Mahanarayana Taila</i> (20ml)	Day 2 – Day 8
<i>Marsha Nasya</i>	<i>Mahanarayana Taila</i> – 8 drops in each nostril	Day 2 – Day 14
<i>Shiroabhyanga</i>	<i>Mahanarayana Taila</i>	Day 1 – Day 30
<i>Shiropichu</i>	<i>Mahanarayana Taila</i>	Day 1 – Day 30
<i>Shirodhara</i>	<i>Tila Taila + Mahanarayana Taila</i>	Day 1 - Day 14

**Table 03: Yogic Intervention**

Intervention	Duration
<i>Sandhisanchalan</i> (Warmup)	15 min
<i>Vrikshasana</i>	5 -10 sec
<i>Tadasana</i>	5-10 sec
<i>Garudasana</i>	5-10 sec
<i>Utkatasana</i>	5-10 sec
<i>Omkar Chanting</i>	20 rounds
<i>Bhramari Pranayama</i>	20 rounds

**The total duration of treatment (Timeline) – is 30 days**

**RESULTS:**

The follow-up and outcomes of the interventions are provided in the table no. 4 and 5. The *Kampa* (tremors) improved in such a way that at the beginning, 2-3 persons were required to measure the blood pressure. But then at the end of the month, only one person was able to measure blood pressure easily.

**Table 04:** Subjective Parameters:

Sr. No	Signs and symptoms	B. T	A. T
1	<i>Kampa</i> (Tremor)	A tremor in B/L Upper Limbs and head (especially during rest)	Tremors in the head completely stopped but slight tremor present unilaterally
2	<i>Gatisanga</i> (Bradykinesia)	Can walk without assistance slowly but with a shuffling gait	Can brisk walk without aid with a normal gait
3	<i>Stambha</i> (Rigidity)	Cog wheel Rigidity	Markedly improved
4	<i>Vakvikriti</i> (Disturbance of Voice)	Slurring of Speech	Normal Speech
5	Sleep	Disturbed Sleep	Normal Sleep

**Table 05:** Objective Parameters:

Symptoms	Total score	BT (30/09/2021)	ON (05/11/2021)
Hoehn and Yahr Scale	5	3	2.5
Berg's Balance Scale	56	48	53

## DISCUSSION

According to Ayurveda, *Kampavata* is caused due to the impairment of *Chala Guna* of *Vata* resulting in progressive neurological disorder. The *Hetus* of the present case suggests pure *Vata Dosha* vitiation by *Ruksha* (~dry), *Sheeta* (~cold), and *Laghu* (~light) properties. Hence, alleviation of this vitiated *Vata* through *Santarpan* (~Nutrition) is the only key to the treatment of *Kampavat* (PD) according to Ayurveda. Hence, *Nidanparivarjana*, (avoiding *Vata* vitiating diet and activities) removal of *Strotodushiti*, *Vata Shamana*, *Vatanulomana*, *Brumhana* (~nourishing) and *Rasayana* (rejuvenating) therapy cures *Kampavata* effectively. *Mahanarayan Taila* destroys all types of *Vata* disorders including *Kampa* by alleviating the vitiated *Vata Dosha* and promoting *Brumhana* [8]. Thus, by using the *Yukti Pramana*, we have used this *Taila* in various forms like *Snehana*, *Nasya*, *Shirodhara*, and *Shiropichu*. *Kapikacchu* has *Madhur-Tikta Rasa* along with *Brumhana*, *Balya*, and *Vatahara* properties [9]. Its active principal L-dopa replenishes the depleted stores of striatal dopamine by crossing the blood-brain-barrier [10]. *Shaliparni* i.e *Sthira* as the name suggests acts by stabilising the *Chala Guna* of *Vata Dosha* by its *Tikta Madhur Rasa*, *Brumhana*, *Rasayana*, and *Tridosahara* properties [11]. *Acharya Charak* has mentioned *Bala* as *Balya* and *Vatahara* in

the context of *Agrya Sangraha* [12]. Besides this, it also has *Rasayana* property. *Ashwagandha* being mentioned as *Balya* and *Rasayana* especially *Medhya Rasayana* acts as a nerve tonic with a nootropic effect [13]. All these drugs act by their *Balya* (strengthening), *Brumhana* (nourishing), and *Rasayana* (nootropic) properties which are the line of treatment of *Vatavyadhi*. *Yograj Guggulu* acts as a *Rasayana* and *Tridoshaghna* especially *Vataghna* when taken with *Maharasnadi Kwath* [14]. *Snehana* and *Swedana* are the first procedures mentioned for the treatment of *Vata Dosha* (*Vatasypakrama*) [15]. *Shiroabhyanga*, *Shiropichu*, and *Shirodhara* are the types of *Murdhni Taila* [16]. Here, the medicated oil like *Mahanarayan Taila* remains in contact with the scalp for a fixed duration of time. *Shiroabhyanga* is specifically indicated in the *Dinacharya* for the maintenance of *Vata Dosha*. It increases brain serotonin, giving albumin-bound protein tryptophan to the brain and also draining out the toxins accumulated in the nerve fibers and myelinated sheets which interrupt the conductivity of the nerve impulse [17]. *Shiropichu* leads to the absorption and diffusion of oil thus correcting the atrophy and degeneration in the temporal lobe, parts of the frontal cortex, and cingulate gyre during the venous drainage [17]. *Shirodhara* strikes on the *Sthapani Marma* which produces vibrations at the level of the hypothalamus and pituitary gland which are associat-

ed with many psychological diseases<sup>[17]</sup>. *Matrabasti* is the only *Basti* that can be administered daily for the conditions like *Vatavyadhi*, *Durbala* (weakened) patients, etc. which leads to an increase in the strength (*Bala*), alleviates Vata disorders, leads to *Brumhana* and easy assimilation into body tissues<sup>[18]</sup>. *Marsha Nasya* is a type of *Nasya* which is quick acting, highly efficacious, and has a long-lasting effect<sup>[19]</sup>. It forcefully gathers the vitiated *Doshas* of the brain which can be eliminated through the mouth. It acts directly by entering through the cribriform plate and neurotransmitters in the brain to stimulate excitatory neural activity. The *Asanas* like *Vrukshasana* help to improve the static balance and fulfil the biochemical demands<sup>[20]</sup>. These *Asanas* stimulate and facilitate the peripheral proprioceptors by manipulating peripheral sensory inputs which improve may improve the balance of the patient. *Omkar Mantra* is a brain stabilizer and energy medicine for stress. Within minutes of practice, the mind and body begin to relax, negative thoughts are dramatically swept away to release this internal life force that heals the self on a cellular level, with more energy, strength, and focus<sup>[21]</sup>. *Bhramari Pranayama* stimulates the reflex of the Autonomic Nervous System which increases the level of noradrenalin, in turn helping one to decrease the level of neuro-hormones responsible for various stresses, anxiety, and aroused mental state in deeper form through bio-feedback mechanism<sup>[22]</sup>. This increases with a deeper breath and resonates while exhaling.

## CONCLUSION

Hence, it can be concluded that Ayurvedic treatment (*Shaman*, *Shodhan*) and Yoga can be very effective in the treatment of *Kampavata* (Parkinson's disease) in an integrative way. Further, more studies need to be conducted with a larger sample size.

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