



AYURVEDIC MANAGEMENT OF KAMPAVATA WITH SPECIAL REFERENCE TO PARKINSON'S DISEASE. A CASE STUDY

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ABSTRACT **Background:** Parkinson's disease (PD) is a progressive neurodegenerative disorder marked by motor symptoms such as tremors, rigidity, bradykinesia, and postural instability. In Ayurveda, it can be correlated with *Kampavata*, a *Vata*-dominant disorder characterized by involuntary movements and rigidity. **Method:** A single case study was conducted on a 62-year-old female patient diagnosed with idiopathic Parkinson's disease, managed through Ayurvedic interventions including *Snehana*, *Swedana* for 5 days, *Ksheer Basti* of *Kapikacchu* (*Mucuna pruriens*), *Yashtimadhu* (*Glycyrrhiza glabra*), *Bala* (*Sida cordifolia*), and *Ashwagandha* (*Withania somnifera*) for 8 days and *Nasya* with *Brahmi Taila* (*Bacopa monnieri*) for 7 days. The patient underwent a 20 day treatment regimen with observation and follow up of 10 days. **Result:** Marked improvement was noted in motor symptoms, gait stability, and quality of life, as measured by the Unified Parkinson's Disease Rating Scale (UPDRS) and clinical observation. *Ashtavidha pariksha* (eight-fold examination) shows improvement according to Ayurvedic perspective as well. **Conclusion:** Ayurvedic therapies, particularly *Ksheer Basti* and *Nasya*, demonstrated beneficial effects in the management of Parkinson's disease, emphasizing the relevance of *Kampavata* concept in clinical practice.

KEYWORDS : *Kampavata*, parkinson's disease, UPDRS score, *Ashtavidha pariksha*, *ksheer Basti*

INTRODUCTION

Parkinson's disease (PD)¹ is a degenerative, long-term neurological disorder that mostly affects movement. The degeneration of dopaminergic neurons in the substantia nigra, leading to dopamine deficiency in the basal ganglia of the central nervous system (CNS). This causes dopamine levels to drop significantly, which impacts the brain's capacity to control movement and coordination. PD is the second most prevalent neurological disease after Alzheimer's disease, affecting about 1% of those over 60.² Pharmacological treatments for PD nowadays mostly involve the use of drugs such as levodopa, dopamine agonists, and MAO-B inhibitors. However, these medications frequently merely alleviate symptoms and have a number of negative side effects, such as motor fluctuations, hallucinations, and dyskinesia. As a result, there is a growing interest in integrative approaches, including Ayurveda, to provide holistic and sustainable management for PD.

From Ayurvedic perspective, Parkinson's disease (PD) is quite similar to *Kampavata*, a *Vata*-dominant condition that is characterized by tremors (*Kampa*), rigidity (*Stambha*), slowness of movement (*Chalatva Hani*), speech abnormalities (*Vaksanga*), and trouble starting and controlling movement. *Kampavata* is categorized as *Vata Vyadhi* in the ancient scriptures, such as the Charaka *Samhita* and Sushruta *Samhita*. Tremors, neuromuscular dysfunction, and the degradation of motor functions are manifestations of the pathophysiology, which centers on the vitiation of *Vata dosha*, namely in the *Majja Dhatu* (nervous tissue) and *Snayu* (muscular tissues).³

Snehana (oleation) and *Swedana* (sudation), two of the main lines of treatment, are fundamental treatments for reversing the dry, cold, and movable characteristics of exacerbated *Vata*. Both internal (*Snehapana*) and exterior (*Abhyanga*) forms of *snehana* work by lubricating the body's channels, encouraging tissue softness and flexibility, and enhancing the nerves' and muscles' ability to function.⁴ *Tailas* are perfect because they calm the disturbed *Vata Dosha*, strengthen the neuro-muscular axis, and *Brimhana* (nourish). External *Abhyanga* promotes better circulation, eases stiffness, and soothes the mind. Usually given after *Abhyanga*, *Swedana* causes sweating to alleviate *Stambha* (stiffness), *Margavarodha* (obstruction), and *Gourava* (rigidity). It makes it easier for agitated *Vata* to return to its natural course. It works very well for degenerative neuro-muscular diseases like *Kampavata*.⁵

When administered systematically before *Panchakarma*, *Snehana* and *Swedana* enhance the therapeutic efficacy of subsequent treatments like *Basti* and *Nasya*. Their role is not just preparatory but also therapeutic, improving quality of life by reducing motor

symptoms, calming tremors, and enhancing mobility.⁶ In Ayurveda, *Kampavata* is managed through a combination of *Panchakarma* therapies, internal medications, and dietary and lifestyle modifications. Among these, *Ksheer Basti*⁷ (medicated milk enema) and *Nasya*⁸ (nasal administration of medicine) have shown promising effects in alleviating symptoms of neurodegenerative disorders. *Ksheer Basti*, being nourishing and *Vata*-pacifying, helps in improving neuromuscular coordination, while *Nasya* helps in enhancing brain functions by delivering drugs directly to the central nervous system through the nasal route.

This case study explores the Ayurvedic management of a clinically diagnosed case of Parkinson's disease, interpreted as *Kampavata*, using *Ksheer Basti* and *Nasya*. The outcome aims to highlight the potential of these classical therapies in offering symptomatic relief and improving the quality of life in patients suffering from Parkinson's disease.

Methodology

A single case study was conducted on a 62-year-old female patient diagnosed with idiopathic Parkinson's disease for 9 years. The patient presented with classical symptoms including resting tremors in left hand, slowness in movement, rigidity in left upper and lower limbs, and postural imbalance. There was also a noticeable reduction in speech clarity and episodes of constipation. The patient had been on Rasagaline⁹ 0.5mg OD and Trihexyphenidyl¹⁰ 2mg BD for 7 years and then started with combination of Levodopa 250mg and Carbidopa¹¹ 25mg QID and Trihexyphenidyl 2mg BD for the past 2 years with partial relief.

The inclusion criteria for the study consisted of patients between 50 and 70 years of age, clinically diagnosed with idiopathic Parkinson's disease, without any secondary ailments or chronic illness and willing to undergo Ayurvedic management. Exclusion criteria included secondary Parkinsonism, patients with significant cognitive decline or psychiatric illness, and those undergoing surgical intervention like Deep Brain Stimulation.

For assessment, the Unified Parkinson's Disease Rating Scale (UPDRS)¹² was used before and after treatment to measure motor and non-motor symptoms. Additionally, Ayurvedic examination included *Ashtavidha Pariksha*¹³ (eight-fold examination), particularly focusing on *Nadi*, *Mala*, and *Jihva*.

Management

Table 1 Represents Visual Gantt-style¹⁴ Timeline Showing Of Intervention

Days 1–5	<i>Snehana & Swedana</i>
Days 6–13	<i>Ksheer Basti</i> administration
Days 14–20	<i>Nasya</i> therapy
Days 21–30	Observation + follow-up

Table 2 explains detailed description of treatment plan

Therapy	Ingredients	Dose & duration	Properties
<i>Snehana</i> (Oleation)	<i>Ksheerbala</i>	-	<i>Snigdha</i> (Unctuousness), <i>Mridu</i> (Softening), <i>Brimhana</i> (Nourishing/Anabolic) ¹⁵
<i>Swedana</i> (Sudation)	Hot steam	Full body for 20mins	<i>Ushna</i> (Hot), <i>Stambha-hara</i> (Relieves stiffness), <i>Srotoshodhana</i> (Channel-clearing) ¹⁶
<i>Ksheer Basti</i> (Medicated enema)	Milk, ¹⁷ <i>kapikachhu</i> , ¹⁸ <i>Ashwagandha</i> , ¹⁹ <i>Bala</i> , ²⁰ <i>Yashtimadhu</i> ²¹ + <i>Ksheerbala</i> oil ²²	280ml OD after meal	<i>Brimhana</i> (Nourishing), <i>Snigdha</i> (Unctuousness), <i>Majjavardhaka</i> ²³
<i>Nasya</i>	<i>Brahmi Taila</i> ²⁴	2 drops in each nostrils BD before meal	<i>Medhya</i> (Intellect-promoting), <i>Vatashamaka</i> , <i>Balya</i> (strengthening) ²⁵

OBSERVATION AND DISCUSSION

Table 3 Explains Baseline And Post-treatment UPDRS Score¹²

Baseline and Post-Treatment UPDRS Score		
Domain	Baseline Score	Post-Treatment Score
Mentation, Behavior & Mood	10	7
Activities of Daily Living	20	14
Motor Examination	28	18
Complications of Therapy	4	4
Total Score	62	43

The **Unified Parkinson's Disease Rating Scale (UPDRS)¹²** is a widely accepted clinical tool used to assess the severity and progression of Parkinson's disease (PD). It provides a comprehensive evaluation of both **motor and non-motor symptoms**. In this case study, the UPDRS served as a critical parameter to objectively assess the impact of Ayurvedic management with *Ksheer Basti* and *Nasya*.^{23,25}

Mentation, Behavior, and Mood evaluates cognitive functions, emotional well-being, and psychiatric complications. The patient initially showed mild cognitive dullness and depressive features, which improved post-treatment due to *Medhya* and *Rasayana* properties of *Nasya* drugs like *Brahmi Taila*.²⁴ **Activities of Daily Living (ADL)** assesses daily tasks such as eating, dressing, hygiene, and handwriting. *Vata*-pacifying *Snehana*, *Swedana* and *Basti* therapies improved neuromuscular coordination, reducing dependence on caregivers and enhancing ADL scores. **Motor Examination** is the core of the UPDRS. It measures tremors, rigidity, bradykinesia, posture, and gait. The patient showed marked improvement in rigidity and hand tremors post-*Ksheer Basti*, evident in reduced motor scores. Improved balance and posture reflected better *Vata* balance. **Complications of Therapy** as initially on Levodopa 250mg and Carbidopa 25mg and Trihexyphenidyl 2mg, the patient had minor side effects like sleep disturbance and nausea. Post-Ayurvedic intervention, these were minimized without new complications.¹⁰

The overall UPDRS score decreased from **62 to 43**, indicating clinically significant improvement underscoring the potential of Ayurvedic therapies not only in managing motor symptoms but also in enhancing quality of life without inducing pharmacological complications.

Ashtavidha Pariksha^{13, 26} is an essential diagnostic framework in Ayurveda that includes eight clinical assessments to determine the state of doshas, *agni* (digestive fire), *dhatu*s, and *mala*. **PD**, which is

primarily a **Vata Vyadhi**, this method provides a holistic view of both motor and non-motor symptomatology before and after treatment. **Vata-dominant Nadi**,²⁷ characterized by an irregular, thin, and feeble pulse, which reflects derangement in neurological activity and dry qualities (*Ruksha*, *Laghu*) of *Vata*. After *Ksheer Basti* and *Nasya*, the pulse became more rhythmic and balanced, indicating pacification of *Vata* and improved cardiovascular and nervous integration. While examining **Mala**,²⁸ constipation is a classical non-motor symptom of PD. Ayurvedic texts describe that *Vata dosha* obstructs the *Apana Vata* function leading to **Vibandha (constipation)**. Post-treatment, bowel regularity improved due to the **Snigdha (unctuous)** and **Brimhana (nourishing)** effect of *Ksheer Basti*, helping restore *Apana Vata* functions. In **Mutra examination**,²⁹ *Vata* aggravation often leads to disturbances in bladder control. The patient experienced urgency and scanty flow. Post-treatment, normalization in urine pattern was observed, attributed to improved *Vata* regulation and fluid balance. A coated **Jihva** (tongue)²⁹ reflects **Ama (toxins)** and poor digestion. Before treatment, the tongue was dry and coated. After *Snehana* and *Swedana* therapy, improved **Agni** and reduced **Ama** were evident with a moist and clean tongue. In PD, **Shabda** (speech) becomes slow, soft, and sometimes slurred due to neuromuscular impairment. After *Nasya* therapy using **Brahmi Taila**, there was improved verbal clarity and articulation, suggesting a direct positive impact on **Prana Vata** and higher cerebral centers. Dry **Sparsha** (touch), rough skin and cold extremities are common *Vata* features. Following *Basti* treatment, warmth and moisture returned to the skin, showing improved peripheral circulation and hydration. *Vata* affects **Drik** (vision) and eye coordination. Before treatment, the patient had blurred vision and eye fatigue. Post-treatment, visual clarity and alertness improved, indicating enhanced **Ojas** and cerebral rejuvenation. Before treatment, the patient had a stooped, rigid posture and dull **Akruti** (appearance). Ayurvedic rejuvenative *Basti* therapy improved muscle tone, posture, and facial expression, reflecting improved vitality and systemic nourishment.

Table 4 Ashtavidha Pariksha¹³ In Parkinson's Disease – Before And After Treatment

Parameters	Before Treatment	After Treatment
Nadi (Pulse)	<i>Vata</i> -predominant, irregular, low volume	<i>Sama-Vata</i> , more stable and rhythmic
Mala (Stool)	Constipated, dry, infrequent bowel movements	Regular, soft, daily elimination
Mutra (Urine)	Scanty, occasional urgency	Normal frequency and flow
Jihva (Tongue)	Dry, coated with white layer	Moist, clean, pinkish
Shabda (Speech)	Slurred, low volume, delayed articulation	Improved clarity and response time
Sparsha (Touch)	Dry skin, cold extremities	Warm skin, better peripheral sensation
Drik (Vision)	Slightly blurred, fatigued look	Sharper gaze, more alert expression
Akruti (Appearance)	Stooped posture, dull face, rigidity	Upright posture, improved facial expression

Ksheerbala Taila, a classical Ayurvedic formulation, is widely used in the management of *Vata* disorders, especially those affecting the nervous system. In this case study, **Abhyanga (external oleation)** with *Ksheerbala* were administered during the pre-Panchakarma phase. The rationale lies in its **Snigdha (unctuous)**, **Brimhana (nourishing)**, and **Vatahara (Vata-pacifying)** properties. The symptoms of *Kampavata* such as **Kampa (tremors)**, **Stambha (rigidity)**, and **Bhrama (gait instability)** are classical manifestations of *Vata* vitiation. *Ksheerbala* helps to counteract the **Ruksha (dry)** and **Sheeta (cold)** qualities of *Vata*, thereby restoring balance in neuro-muscular functions.²²

Bala has well-known properties for its muscle-strengthening, neuroprotective, and anti-inflammatory properties. Milk provides nutrients at the *Dhatu* level, especially *Majja Dhatu*, which is associated with the nervous system, and functions as a *Rasayana* (rejuvenator). Sesame oil delivers active substances to target areas by acting as a carrier and penetrating deep tissues.²⁰

Post-*Snehana*, the patient reported a subjective sense of warmth, reduced stiffness, and better mobility. The preparatory effect of *Ksheerbala* ensured a smoother detoxification phase during **Basti karma**, enhancing therapeutic absorption and clinical outcomes. The

cumulative effect supports classical Ayurvedic understanding where **Snehana is considered essential for breaking the pathogenesis of Vata Vyadhi**, including *Kampavata*. Thus, *Ksheerbala Taila* proves to be a potent and appropriate choice for oleation therapy in Parkinson's disease management.

Basti is the prime treatment for *Vata* disorders, and both *Asthi* and *Majja* are highly influenced by *Vata dosha*. It's interesting to note that *Meda Dhatu* directly feeds *Asthi*, who is regarded as the fifth dhatu in the *Dhatu Poshana Krama*. *Ksheer Basti* calms agitated *Vata* and restores equilibrium in deeper tissues by virtue of its *Snigdha* (unctuous), *Sheeta* (cooling), and *Madhura* (sweet) qualities. The primary location of *Vata* and a major centre of immunological, neurological, and microbiological activity is the colon (*Pakvashaya*), where *Basti* is administered. A gut-bone marrow axis has also been suggested by recent research, which may help to explain how systemic health is modulated by rectal delivery of such medications. Both bone marrow and neurological elements such as the brain and spinal cord are included in *Majja Dhatu*.³³

It is evident that *Ksheer Basti* improves neurological problems by influencing *Majjavaha Srotas*. The lipophilic herbal components are effectively transported to deeper tissues like bone and marrow by the milk base, which serves as a carrier. According to current pharmacological knowledge, these treatments' high lipid content and antioxidant qualities may aid in myelin repair and neuroregeneration.³⁴ Specifically developed to alleviate *dhatukshaya* (tissue depletion), especially of *Asthi* and *Majja Dhatu*s, *Ksheer Basti* (medicated milk enema) is one of the most effective *Brimhana Bastis*. Medicated milk is administered through the rectum, which circumvents hepatic metabolism and guarantees improved systemic absorption of the bioactive ingredients. While the carefully chosen herbs intensify the effect on the nerve tissue and central nervous system functions, the special *Snigdha* (unctuous) and *Guru* (heavy) features of milk calm agitated *Vata*.^{7,33,34}

The formulation of *Ksheer Basti* using *Yashtimadhu* (*Glycyrrhiza glabra*), *Bala* (*Sida cordifolia*), *Kapikacchu* (*Mucuna pruriens*), and *Ashwagandha* (*Withania somnifera*) is particularly beneficial in *Kampavata*. Every herb has unique medicinal properties that have an immediate impact on the underlying pathophysiology of Parkinson's disease. The natural presence of L-DOPA, a direct precursor of dopamine—the main neurotransmitter lacking in Parkinson's disease—in *Kapikacchu*¹⁸ is well documented. Research has demonstrated that *Mucuna pruriens* not only raises dopamine levels but also guards against neurodegeneration brought on by oxidative stress. The L-DOPA from *Kapikacchu*, which is administered through *Ksheer Basti*, has a quicker systemic absorption and less stomach breakdown, which makes it a strong natural substitute for synthetic levodopa treatment.

Ashwagandha,¹⁹ a well-known *Medhya Rasayana* with neuroprotective, antioxidant, and adaptogenic qualities. It aids in lowering mitochondrial malfunction, oxidative stress, and neuroinflammation—all of which are linked to the developing pathology of Parkinson's disease. Additionally, *ashwagandha* enhances synaptic connection and encourages neuronal regeneration, all of which are important in slowing the progression of disease.

The use of *Bala*,²⁰ with its rejuvenative and *Vatashamaka* action, strengthens the neuromuscular system, improving muscle tone, coordination, and reducing tremors. It is particularly effective in restoring *Majja Dhatu* through its *Brimhana* (bulk-promoting) and *Balya* (strengthening) effects.

*Yashtimadhu*²¹ is included for its neuroprotective, anti-inflammatory, and hormone-regulating properties. It acts on the HPA axis, reduces neuroinflammatory cytokines like TNF- α and IL-6, and also supports glial cell function. Its *Snehana* and *Madhura* properties directly nourish the *Majja* and promote mental calmness, which is often disturbed in PD patients due to anxiety and disturbed sleep.

From the perspective of *Dhatvagni* and *Dhatuparinama* (tissue transformation), *Ksheer Basti* promotes the nourishment and regeneration of *Majja Dhatu*, thereby providing stability to *Asthi Dhatu*. In Parkinson's disease, degeneration is not limited to neurotransmitters alone but also affects the supporting structures and tissues of the brain and spinal cord, which are under the purview of

Majja and *Asthi dhatus*. The *Brimhana* effect of *Ksheer Basti* strengthens these *dhatus* and thereby halts the catabolic progression seen in neurodegenerative disorders.³⁵

A fascinating clinical observation is that patients who receive *Ksheer Basti* with this specific herbal combination often report improvements not only in motor symptoms such as tremors and rigidity but also in non-motor domains like sleep quality, bowel habits, mood, and cognition. This highlights the systemic action of *Basti*, affecting multiple physiological axes beyond the neuromotor framework. Additionally, Ayurvedic texts emphasize that *Majja* is the seat of *Ojas*, the essence of vitality. Nourishing *Majja* indirectly improves immunity, energy, and resilience, all of which are significantly compromised in chronic neurodegenerative disorders.³⁶

Nasya, the administration of medicated oils through the nasal route, is a powerful therapy for disorders of the head and central nervous system, especially those governed by aggravated *Vata dosha*. Classical texts describe the nose as the "gateway to the brain" (*Nasa hi shirasodwaram*). *Nasya* with *Brahmi Taila*²⁴ stands as a brilliant convergence of ancient wisdom and neurotherapeutic innovation—a doorway to cerebral restoration in *Kampavata*. It has a transformative role by delivering neuroactive compounds directly to the *Shira* (brain), bypassing the blood-brain barrier and first-pass metabolism. This route directly stimulates the CNS and olfactory receptors, creating rapid systemic and cerebral effects.³⁷

Brahmi (*Bacopa monnieri*)²⁴ is a potent *Medhya Rasayana*, known for enhancing cognition, memory, and neuroplasticity. Its active compounds, bacosides, exert antioxidant, anti-inflammatory, and neuroregenerative effects. When processed into *Brahmi Taila* and used in *Nasya*, these benefits are magnified and targeted to the cranial nerves and limbic system, especially through the olfactory and trigeminal pathways. This direct access allows it to modulate neurotransmitter activity, particularly dopaminergic and cholinergic circuits, both of which are compromised in Parkinson's disease.

On the motor system, *Brahmi Taila Nasya* improves muscle coordination, reduces tremors, and strengthens neuromuscular function by calming *Vata* in the *Urdhvajatru* (region above the clavicle). On the non-motor front, it enhances mental clarity, reduces anxiety and insomnia, and improves mood, speech, and swallowing, all frequently affected in *Kampavata*. The oil's *Snigdha* (unctuous) and *Sukshma* (subtle) nature allows it to penetrate deep into the *Majja Dhatu*, rejuvenating brain tissues and stabilizing neural circuits. The holistic approach of Ayurveda, aiming at *Vata Shamana*, *Brimhana*, and *Rasayana*, not only addressed the root cause but also improved the patient's functional ability, emotional stability, and quality of life. The stepwise execution of therapies ensured better bioavailability of drugs, improved nervous coordination, and rejuvenation of the affected neuro-muscular structures.³⁸

CONCLUSION

This clinical study highlights the effectiveness of classical Ayurvedic interventions—particularly *Ksheer Basti* and *Nasya Karma* in the management of *Kampavata*, correlating with Parkinson's disease in modern medicine. The treatment protocol, initiated with *Snehana* and *Swedana* using *Ksheerbala Taila*, followed by *Basti* and *Nasya*, demonstrated significant improvement in both motor and non-motor symptoms, as reflected by the reduction in UPDRS scores and improvement in *Ashtavidha Pariksha* parameters.

Given the progressive and debilitating nature of Parkinson's disease, Ayurvedic treatments offer a **safe, sustainable, and integrative approach**, especially in early or moderate stages, with minimal side effects. However, larger sample sizes, longer follow-ups, and interdisciplinary studies are needed to further validate these outcomes and standardize protocols. Thus, this case study supports the **potential role of Ayurvedic Panchakarma therapy in neurodegenerative disorders**, advocating its inclusion as a complementary modality in Parkinson's disease care.

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