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CASE REPORT

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Ayurvedic management of Parkinson's disease - A **Case Study**

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ABSTRACT

Parkinson's disease is defined as Chronic, progressive neurodegenerative disease characterized by both motor and non-motor features. The most important signs and symptoms of Parkinson's disease occur when the nerve cells in basal ganglia, an area of brain that controls the movement become impaired or die. When these neurons die or get impaired, they tend to produce less amount of important chemical in the brain called as Dopamine which causes various symptoms like Tremors, Rigidity in muscles, Akinesia and postural disability associated with various Cognitive, Behavioural and other Psychological symptoms. In Ayurveda presentations of this disease can be corelated with the Kampavata in which both Sarvanga Kampa and Shiro Kampa are important Lakshanas that are seen. The Vata that is responsible for controlling the various functions of the body is responsible for causing the disease Kampavata and hence Kampavata is also mentioned in 80 types of Nanatmaja Vikaras. The Chala Guna of the Vata is pathologically increased leading to the Kampa. Treatment mainly aims at reversing the imbalance of Vata Dushti through various Shamana and Shodhana Chikitsa, Here a case of 58 year old female presenting with the symptoms of Severe Tremors, Postural instability and difficulty in performing daily activities who was provisionally diagnosed as Kampavata was successfully treated with Snehana and Brihmana line of management in the form of Sarvanga Abhyanga, Shali Pinda Swedana and Rajayapana Basti.

Key words: Parkinson's Disease, Kampavata, Snehana, Swedana, Rajayapana Basti.

INTRODUCTION

Parkinson's disease is a chronic progressive disease of the nervous system characterized by the cardinal features of Rigidity, Bradykinesia, Tremor and Postural Instability. [1] The exact cause of the Parkinson's disease is not exactly known. But the factors such as Genetic

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predisposition, infections such as Encephalitis, Prolonged use of Antipsychotic drugs, Arteriosclerosis, Neurotoxins etc. can affect the substantia nigra in the basal ganglia leading to the destruction of Dopamine producing neurons. The Vagus nerve may play a crucial role in pathogenesis of Parkinson's Disease which has been hypothesized that Alpha-synuclein aggregates form in the enteric nervous system, and spread via the autonomic system to the Central Nervous System.[2] The incidence of Parkinson's disease increases with age, but an estimated 4 percent of people with Parkinson's disease are diagnosed before the age of

Kampavata manifestations have the similarities in presentations with Parkinson's disease. Kampavata is one among the Vataja Nanatmaja Vyadhi explained in Charaka Samhita^[4] and same is explained as Vepathu by various other Acharyas. In Madhava Nidana, Vepathu is explained in a separate chapter which is

characterized by Sarvanga Kampa and Shiro Kampa. [5] In Basavarajeeyam, the symptoms of Kampavata provides the diagnostic clue regarding the disease Parkinson's presented by symptoms such as Karapadatale kampa, Deha Bhramana, Nidrabhanga and Ksheenamati.[6] Kampavata being one of the Vatavyadhi, general line of management of the Vatavyadhi can be adopted considering the specific nidanas. As Snehana and Swedana are first line of management that are told and Basti chikitsa helps in treating the Vata dushti, A 58 year old lady with Kampavata was adopted here with Sarvanga Abhyanga, Shashtika Shali Pinda Swedana and Rajayapana Yoga Basti followed by Shamanoushadhi's which has given maximum improvements in both physical and mental parameters after the treatment.

CASE REPORT

Female patient of age 58yrs who is not a k/c/o Hypertension / Diabetes Mellitus / Thyroid dysfunction was apparently normal 5 years back. One day patient started complaining of pain in lower limbs and patient found difficulty in walking due to stiffness in lower limbs. The pain also started radiating to bilateral upper limb within span of 1 day. Gradually patient started presenting with forward bending of the body, difficulty in maintaining posture and difficulty in holding the objects for which patient became dependent on others for performing the house hold work, taking bath and combing hair. For all these complains patient took Siddha and Ayurvedic treatment in her hometown and details of the medicines are not Known. Patient also started experiencing delusions, difficulty falling asleep and always thinking in subconscious mind. Next, patient started having the complaints of slow and reduced speech, reduced facial expression and blinking of the eyes since 2 years for which patient took medicines but didn't get relief. Gradually patient started difficulty in passing stools (once in 2 days) along with tremors in both hands since 1 year. Patient also complains of lockjaw 1 year back for which patient visited the nearby hospital and took treatment and found great relief. Now patient complains of Severe Tremors in upper and lower limbs, difficulty in walking, performing the daily activities, pain in the shoulder joint and involuntary movements in upper limbs which got aggravated since 6 months for which patient visited SKAMCH&RC for further management.

Past History

Nothing contributory.

No H/o Hypertension / Diabetes Mellitus / Thyroid dysfunction / Trauma or any other major medical illness.

Medical history: 1)Syndopa Plus 1-0-1 2) Pacitane 2mg 1-0-1

Surgical history: Hysterectomy 7 years back.

Family History

No similar complaints seen in the family.

Personal History

Appetite: Reduced since 1 year.

Bowel: Constipated since 1 year (2 days once).

Micturition: 4-5times/day, 2-3 times at night.

Sleep: Disturbed and Delayed.

Habits: Tea-coffee 2-3 times/day.

General Examination

On the day of examination patient was found to be Moderately nourished, Moderately built, Afebrile, Other parameters like Pallor was present, Icterus, Clubbing, Cyanosis, Lymphdenopathy, Edema was absent with Stooped posture and Festinant gait.

Systemic Examination

CVS: S1 S2 Heard, No murmur.

GIT: P/A Soft, non-tender, no organomegaly.

RS: NVBS heard, No added sounds.

CNS:

Higher Motor Function

Consciousness - Conscious

Orientation to time - Intact

Orientation to place - Intact

Orientation to person - Intact

Memory immediate - Intact

Memory recent - Intact

Memory remote - Intact

- Intelligence Moderate
- Hallucination Absent
- Delusion Present
- Emotional disturbance Present
- Speech Disturbance Present

Dysarthria: slow speech, difficult in articulation.

Handedness - Right

Cranial Nerve Examination

All the Cranial nerves are intact except Facial nerve where frowning of forehead is reduced and Spinal Accessory where Shrugging of shoulder with and without resistance is not possible.

Sensory System Examination

Superficial	Deep	Cortical
Touch - Intact	Touch - Intact	Tactile localization -
Temperature -	Temperature -	Present
Intact	Intact	Tactile discrimination -
Pain - Intact	Pressure sense	Present
	- Intact	Stereognosis - Present
		Graphesthesia - Present

Motor System Examination

Muscle Bulk	Right (in inches)	Left (in inches)
Upper limb		
Arm	9.5	9
Forearm	7.5	7.5
Lower limb		
Thigh	16	16.5
Calf	10	9.5

Tone

Rigidity seen in Upper limb and Lower limbs.

Co-ordination

Romberg Sign - positive

Upper limb: Finger to nose test - possible

Finger to finger test - possible

Rapid alternate movements - B/L upper limb - difficult to perform

Lower limb: Heel shin test - not possible

Tandem walking - not possible

Involuntary movements - Present in B/L upper limb

Gait - Festinating gait

Superficial reflexes	Deep reflexes
Corneal reflex - positive	Biceps jerk : 2+
Abdominal reflex - positive	Triceps jerk : 2+
Plantar reflex - positive	Supinator jerk : 2+
	Knee jerk : 2+
	Ankle jerk : 2+
	Clonus - Patella - Absent
	Clonus - Ankle - Absent
	Jaw jerk : 2+

Locomotor System Examination

Cervical spine	Lumbar spine
Inspection:	Inspection: normal
Spine curvature - Stooped	Palpation: tenderness absent
posture	Range of movements :
Palpation: Tenderness - absent	Flexion - unable to perform
Range of movements:	Extension - unable to perform
Flexion: mild painful	Left lateral bending - unable to perform
Extension: mild painful.	Right lateral bending - unable
Left lateral bending: mild	to perform
painful.	Left rotation - unable to
Right lateral bending: mild painful	perform

Left rotation: mild painful.	Right rotation - unable to
Right rotation: mild painful.	perform

All Joints are normal with no swelling, no tenderness, no deformity.

Except - Movements of flexion and extension of Bilateral knee joint is painful, All the movements of Shoulder joint is painful, Internal and External rotation of Hip Joint is painful.

Ashta Sthana Pareeksha

Nadi: 76 per minute

Mala: 2 days once

Mutra: 4-5 times/day

Jihwa: Lipta

Shabdha: Prakruta

Sparsha: Anushna Sheeta

Drik: Prakruta

Akriti: Madhyama

Diagnosis

Majority of the symptoms correlated with the *Kampavata* which can be considered as Parkinson's Disease in Contemporary science.

It fulfills the following criteria's:

- Tremor
- Bradykinasea
- Rigidity
- Postural Instability

Intervention

Table 1: Showing the treatment given in 2 Phases.

Date	Treatment Given	Observations and Results
31/07/2021 to 07/08/2021 [8 days] PHASE 1	 Shirobasti with Moorchita Taila. Sarvanga Abhyanga with Moorchita Taila. 	 Stiffness in hands reduced comparatively.

	 Sarvanga Shastika Shali Pinda Sweda. Orally Gandharva Hastadi Taila 20ml with milk in empty stomach. Zandopa powder 1tsp TID. 	 Pain in shoulder joint persists. Patient feels lightness and has become active.
8/08/2021 to 14/08/2021 [7 days] PHASE 2	 Shiro Basti with Moorchita Taila. Sarvanga Abhyanga with Moorchita Taila. Sarvanga Shastika Shali Pinda Sweda. Rajayapana Basti. Orally Zandopa powder 1tsp TID 	 C/O tremors in B/L upper limbs persists. Improvement in sitting, standing and patient try to walk by herself with assistance.
14/08/2021 to 16/08/2021 [3 days]	 Shiro Basti with Moorchita Taila. Sarvanga Abhyanga with Moorchita Taila. Sarvanga Shastika Shali Pinda Sweda. Anuvasana Basti with Mahanarayana Taila. Orally Zandopa powder 1tsp TID Chaturbhuja Rasa 1-0-1 (A/F) 	 C/O tremors in B/L upper limbs slightly reduced. Patient is able to sit for longer duration and tries to walk comparitively better. Pain over the shoulder joint reduces. Slurred speech reduced and patient is able to balance herself.
17/08/2021 to 21/08/2021 [5 days]	 Shiro Basti with Moorchita Taila. Sarvanga Abhyanga with Moorchita Taila. 	 C/O of tremors in B/L upper limb reduced. Patient's response is better and

•	Sarvanga Shastika		attempt to
	Shali Pinda Sweda.		stand by
Orally		herself from	
			chair.
•	Zandopa powder 1tsp TID	•	Patient is able to stand
•	Chaturbhuja Rasa 1-0-1 (A/F)		straight and walk without
•	Balarishta		support for certain
•	Ashwagandharishta 6tsp TID		distance.

Table 2: Showing the chart of *Rajayapana Basti* given for 8 days.

Days	1	2	3	4	5	6	7	8
Basti	А	N	А	N	А	N	А	А

A - Anuvasana Basti - Mahanarayana Taila - 80ml

N - Niruha Basti - Following ingredients are added.

- 1. Madhu = 60ml
- 2. Saindhava Lavana = 6 grams
- 3. Mahanarayana Taila = 80ml
- 4. Rajayapana Kalka = 30grams
- 5. Rajayapana Kwatha = 300ml
- 6. Aja Mamsa Rasa = 200ml

Follow Up Medications

 Balarishta - 6tsp TID with 6tsp of warm water (After Food)

Ashwagandharishta - 6tsp TID with 6tsp of warm water (After Food)

Dashamoolarishta - 6tsp TID with 6tsp of warm water (After Food)

2. Zandopa powder - 1stp-0-1tsp for 1 month.

OBSERVATION AND RESULT

Significant reduction in the symptoms after treatment in Tremor, Bradykinesia, Rigidity, speech. The tremors reduced from grade 4 to grade 2 after the treatment. There was an improvement in speech from grade 3 to about grade 1. Rigidity got relieved from grade 3 to

grade 1, Bradykinesia also reduced from grade 4 to grade 1.[7]

SN	Results	Before Treatment	After Treatment
1.	Tremor	4	2
2.	Bradykinesia	4	1
3.	Rigidity	3	1
4.	Speech	3	1

DISCUSSION

The Majority of the symptoms of Parkinson's Disease can be correlated with the classical symptoms of *Kampavata* told in *Ayurvedic* literature. The main pathology involved here is due to *Dhatukshayajanya Vata Vyadhi* and line of management should be adopted based on *Nirupasthambita Vata Vyadhi Chikitsa*. [8] Therefore, it becomes very much necessary to adopt the *Brihmana* line of management to relieve the symptoms caused due to *Apatarpana* pathology.

So, the first line of management that was given was Sarvanga Abhyanga with Moorchita Taila. Sarvanga Abhyanga helps in Vatashamana and Jara Vyadhi Nashana. Parkinson's disease is usually seen in older age and Sarvanga Abhyanga helps in regulating the functions of Vata and Kapha. The patient's body also attains Dridata by adopting Abhyanga. [9]

Shashtika Shali Pinda Swedana provides Brihmana effect along with the Swedana effect. The Dashamoola Kwatha, Balamoola Kwatha along with Ksheera and Shali helps in nourishing the muscle tissues and also prevents the further chances of muscle weakness. [10] Swedana makes the skin more permeable by vasodilatation of blood vessels and helps in absorption of medicines. The important quality of Shashtika is Snigdha, Guru, Sheeta and Tridoshahara along with Ksheera which is amphipathic in nature that helps in greater absorption of the medicine through the skin. In this way, Shashtika Shali Pinda Swedana helped in providing Brihmana effect along with controlling the vitiated Vata in the patient.

Shirobasti is one among the Murdhni Taila procedure where large quantity of Sneha is retained on the head for longer duration. In case of Parkinson's Disease where both psycho somatic functions are hampered, Shiro Basti helps in relaxing and revitalizing the Central Nervous System by balancing the hormonal functions that regulates the emotional behaviours and sleep disturbances.

Yapana Basti is given prime importance in Siddhisthana as it can be given in both Swastha and Atura and Sarva Kala. Yapana Basti having the properties of Mamsa Balajanana, Shulahara, Janu Uru Jangha Graham, Sadyobalajanana, Rasayana etc. helps in strengthen the muscles and has neuroprotective action.[11] Basti Chikitsa is adopted in this case as it has a special mode of action to control all 5 Doshas in the sequential order of Apana Vayu, Samana Vayu, Vyana Vayu, Udana and Prana Vayu later corrects vitiated Kapha and Pitta Doshas finally bringing equilibrium in the various systems of the body. [12] Basti has a special property to stimulate Enteric Nervous System and also acts on Central Nervous System by sending the afferent impulses via different Chemoreceptors and Baro Receptors. Yapana Basti in this way shows both Shodhana and Rasayana action, thus helps in Parkinson's Disease.

CONCLUSION

Kampavata and its treatment principles has been adopted in this case as majority of the symptoms are similar to that of Parkinson's disease. Bahya Chikitsa along with the Panchakarma modalities can create wonders and miracles in treating various Vata Vyadhi. After proper assessment and diagnosis Sarvanga Abhyanga, Shashtika Shali Pinda Swedana and Rajayapana Basti which was adopted helped in bringing back the vitiated Vata Dosha to normalcy and Brihmana nature of Yapana Basti helped in rejuvenation of body and strengthening the neurological functions of the body. Shamana Oushadhi's that were adopted like Arishtas in the form of Ashwagandha, Bala, Dashamoola along with combined effects of Kapikachu are useful in improving the day to day activities of patient as it balances Vata Dosha and Kapikachu in Zandopa powder acts as the supplementation of the L-DOPA which makes it special in the management of Parkinson's Disease. [13] As the Parkinson's disease is neuro degenerative this study paves a way for further research in larger samples to understand the various other *Panchakarma* procedures in treating this condition.

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