

AN AYURVEDIC APPROACH TO PARKINSON'S DISEASE – A CASE STUDY

Dr. Sreelakshmi¹ Dr. Abdul khader²¹PG Scholar, ²ReaderDepartment of PG Studies in Kayachikitsa SKAMCH&RC,
Vijayanagar, Bangalore, Karnataka, India

ABSTRACT

Parkinson's disease (PD) is a chronic progressive movement disorder, meaning that symptoms continue and worsen over time. Where the malfunction and death of vital nerve cells in the brain, called neurons occurs. PD primarily affects the neurons in an area of the brain called the *substantia nigra*. These neurons produce dopamine, a chemical that sends messages to the part of brain that controls movement and coordination. As the disease progresses, the amount of dopamine production decreases leaving the person unable to control movement normally. It is characterized by four cardinal features (1) tremor (2) bradykinesia (3) rigidity (4) postural instability¹. In ancient *ayurvedic* treatises there is no reference that can be correlated exactly to Parkinson's disease, but based on symptomatology it has simulation with various manifestations like *kampavata*, *tandavaroga*, *shirsharoga*. In classics treatment mentioned for *kampavata* are *sweda*, *abhyanga*, *anuvasana*, *niruha*, *shirobasti* and *nasya*². The medicines like *ksheerabala taila*³, *mahakalyanaka ghrita*⁴; *vacha churna* helps symptomatic relief in patient and help to improve quality of life. Early detection and effective treatment can cure the disease. The present case reveals a significant improvement in the symptoms of Parkinson's disease without causing any side effects.

Keywords: Parkinson's disease, *kampavata*, *snehana*, *shirobasti*, *nasya*.

INTRODUCTION

Parkinson's disease (PD) affects men and women of all races, all occupations, and all countries. The mean age of onset is about 60 years, but cases can be seen in patients in their 20's and even younger. The frequency of PD increases with aging. It is estimated that approximately 1 million persons in United States and 5 million persons in the world suffer from this disorder⁵. Epidemiological studies have shown that increased risk with exposure to pesticides, rural living,

and drinking well water, and also decreased risk in cigarette smoking and caffeine. Genetic causes are also there as 10-15% is familial in origin⁶.

On the basis of signs and symptoms, Parkinson's disease can be correlated with *Kampavata* a disease described under the heading *VatajaNanatmaja*⁷ disorders in Ayurveda. In time of Charaka and Sushruta cluster of symptoms like *Kampa*(tremor), *Stambha*(rigidity), *Chestasanga*(bradykinesia and

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akinesia), *Vakvikriti* (disturbance in speech) etc. were described in different contexts, and are clubbed as part of *Vatika* (neurological) disorders. As a separate clinical entity *Kampavata* was first narrated by Acharya Madhavakara (author of Ayurvedic treatise *MadhavaNidana*) under the name of “*Vepathu*”. However, 20 th century authors like Shri Govind Das Sen , Basavaraja gave an unanimous description by explaining the clinical picture of *Kampavata* and all clinical features described by him are similar to that of Parkinson's disease .In modern medical science, the goal of treatment for this disease is to alleviate symptoms that interfere with the patients activities of daily living and to prevent or limit its complication, as Parkinson's disease is a progressive disease leading to crippling of the patients. Mainstay treatment for Parkinson's disease is dopamine replacement therapy, other drugs like Anticholinergic drug and dopamine agonists are also used but as disease progresses these drugs effects diminished and even increasing doses are also not responsive. Further these drugs having undesirable side effects. Some of the stereo static surgical methods are also employed but having great risk and there is chance of failure⁸. So Parkinson's disease remained unabated at the face of scientific society. Thus there is a need for effective, rejuvenative therapy devoid of any side effect.

CASE STUDY

A 64 year old male patient was presented with complaints of tremors in left hand and right leg associated with difficulty in speech. History of the patient revealed that before 11 months he gradually developed tremor and later he noticed difficulty in speech and rigidity in movements. The *kampa* (tremor) used to aggravate at rest & was absent during

movements. Initially he neglected the symptoms. After 4 months, he developed *kampa* (tremor) in his *vama hasta* (left hand). The *kampa* (tremor) used to aggravate due to mental stress. Since 8 months patient noticed *Shirogaurava* (heaviness in head), Tendency to fall forwards while walking, slowness of movements, masked face, slowness in speech (like he noticed difficulty in initiating the sentence).

Patient also c/o *Baddha mala & asamyakvega* (Incomplete evacuation of stools) since 1 year. He also started to notice difficulty in initiating day to day activities like slowness in eating food and taking objects, putting button and loss of memory. For this he consulted an allopathic physician.

Through examinations (details not available) he was diagnosed as Parkinsonism and was prescribed with medicines (details not available). He took this medication for about 15 days, while taking this medicine he felt weakness of body and as he did not get any relief in his symptoms, he abruptly stopped the medicine without consulting the doctor. Gradually the disturbance was increased in intensity i.e., the patient noticed slowness of speech and reduced swinging of arms while walking. By this time patient started noticing giddiness while walking, slowness in speech and movements. His daily activity affected more than before and he noticed there was disturbed walking i.e. tendency to walk fast. From past 1-2 years his bowel is disturbed, i.e. he passes stools which are hard in consistency with incomplete evacuation and sometimes on alternative days. Patient's bladder is not affected by the course of the illness.

DIFFERENTIAL DIAGNOSIS

- Alzheimer's disease

- Atypical parkinsonism
 - Secondary parkinsonism
 - Parkinson's syndrome
 - Essential tremor
 - Ataxia
 - Dementia with lewy bodies
 - Multiple system atrophy
- Tremor
 - Rigidity
 - Bradykinasea or slowness in movements
 - Masked face
 - Emotional factors

Intervention

The conservative treatment given in present study–

DIAGNOSIS

The case had been diagnosed as Parkinson's disease as it fulfills the cardinal features⁹ of this disease as follows:

Date	Advised	Observation
16/03/2016 to 18/03/2016	<i>Sarvangachoor napindasweda with triphalachoorna</i>	
19/03/2016 to 25/03/2016	<i>Sarvangaabhyanga with ksheerabalataila followed by patrapindasweda</i>	Reduced the symptoms of heaviness in head
23/03/2016 to 29/03/2016	<i>Shirodhara with ksheerabalataila</i>	Patient feeling very relaxed, Tremor reduced, Slowness of movement improved. Sleep improved
27/03/2016 to 02/04/2016	<i>Sarvangaabhyanga with ksheerabalataila followed by shashtikashali-pindasweda</i>	60% of relief (as per patient's words)
27/03/2016 to 02/04/2016	<i>Nasya : mukhabhyanga with ksheerabalataila Nasya with mahakalyanakaghrita 10 drops</i>	Tremor got reduced

The case had been followed up twice in a month after the course of treatment.

Criteria for assessment

Assessment of the effect of treatment on signs and symptoms have been done based

on subjective and objective parameters by adapting a grading pattern before and after the treatment as follows¹⁰ Table 1

TABLE 1:

Grading	Kampa(Tremor)	Gatisanga (bradykinesia)	Vakavikriti(disturbance in voice)	Stambha (rigidity)
4	Bilateral violent tremor along with tremor in tongue and / or in eyelids lips and not suppressed or diminished by desired movement	Unable to raise from bed and walk without assistance	Incomprehensive words, monotonous voice, echoing, speaks only on insistence of examiner	Marked rigidity in major joints of limbs, patients maintain abnormal sitting postures, stared eyes
3	Tremor not violent but present in less number of organs mentioned above	Can walk slowly but need substantially help, shuffling with retropulsion/propulsion lack of associated movement	Monotonous voice, spilt consonance but understandable speaks free with examiner	Patients sit properly but Cogwheel rigidity demonstrable in major joints slow eye ball movements without staring appearance
2	Bilateral tremor	Can walk without assistance slowly with shuffling with retropulsion/propulsion	No echoing dysarthria present but speech is clearly understandable monotony present	Rigidity demonstrable on one of major joints
1	Unilateral slight tremor present at rest decreased by action, increases by emotion and stress and	Can walk without assistance slowly but with shuffling gait	Variable tone of voice, slight slurring of speech	Cog-wheel rigidity feebly present and on continuous examination vanishes

	disappears during night			
0	No tremor	Can walk brisk without aid	Normal speech	No rigidity

Observation and result

There was a significant reduction in the symptoms after treatment especially in speech and tremor. The tremor reduced from

grade 3 to grade 1 after the treatment. There was a marked improvement in speech from grade 3 to about grade 0. Bradykinasia also reduced from grade 2 to grade 0.

EFFECT OF TREATMENT IN TREMOR

PARAMETER	RIGHT LEG					LEFT LEG				
	BT	AT	% Relief	AT1	% Relief	BT	AT	% Relief	AT1	% Relief
Tremor	3	1	67%	1	67%	0	0		0	

Bt-before treatment, AT-after treatment,AT1-after follow up

PARAMETER	RIGHT HAND					LEFT HAND				
	BT	AT	% Relief	AT1	% Relief	BT	A T	% Relief	AT1	% Relief
Tremor	3	1	67%	1	67%	0	0		0	

Bt-Before Treatment, At-After Treatment, AT1-After Follow Up

EFFECT OF TREATMENT IN SPEECH

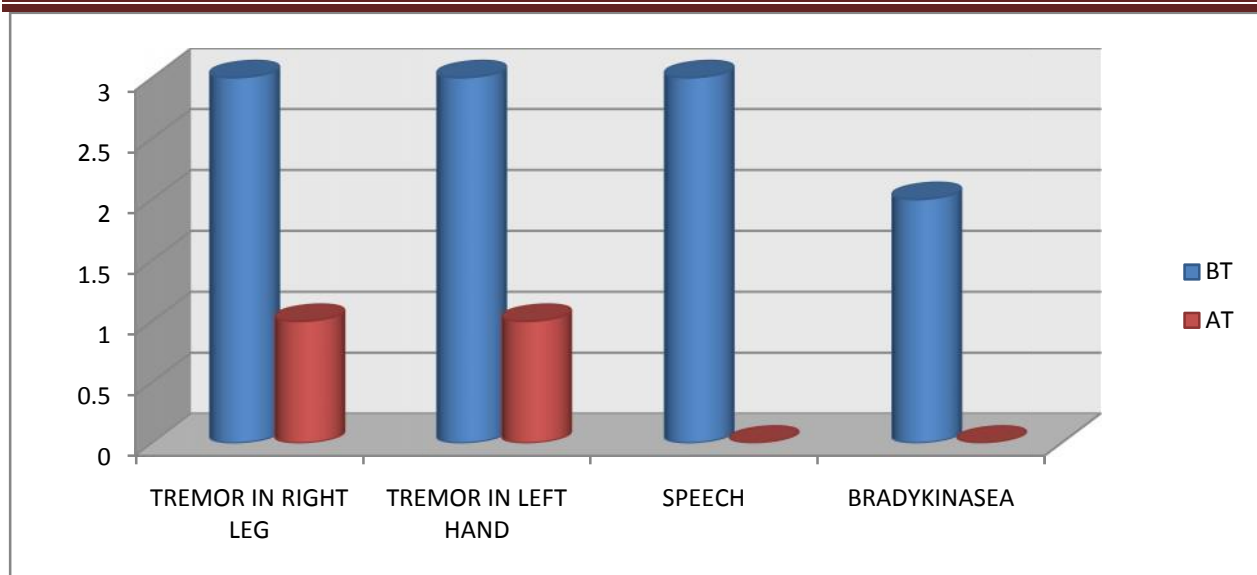
PARAMETERS	BT	AT	% Relief	AT1	% Relief
SPEECH	3	0	100	0	100

Bt-Before Treatment, At-After Treatment, AT1-After Follow Up

EFFECT OF TREATMENT IN BRADYKINASEA

PARAMETERS	BT	AT	% Relief	AT1	% Relief
BRADYKINASEA	2	0	100	0	100

Bt-Before Treatment, At-After Treatment, AT1-After Follow Up



DISCUSSION

Ayurvedic regimens have a lot to offer patients with *kampavata*. While the pharmacological actions of specific drugs are being found useful, care will be depends on proper lifestyle and daily regiments which pacify patient's *vikruti* (pathology). And also as psychological factors are one of the causes for the disease one should encourage discovering the underlying psychological components contributing the condition.

The patient presented as a case of Parkinson's disease initial stages we can explain and observe that the quality of life can be improved and the progression of the disease can be delayed with treatment of Ayurveda. In Ayurvedic treatises the concept of *avarana*¹¹ is discussed with utmost importance so as to explain the *samprapti* of many diseases. Many clinical conditions mainly neurological conditions present as some sort of *avarana*. Here in this case in Parkinson's disease mainly *kaphavrita-udana*¹² and *kaphavritavyana*¹³ will be affecting in initial stages. The other like *pranavata* also getting affected in later stages. *Chesh-tahani* and *gatisanga* are features of *kapha-*

vritavyana. *Vaksanga* will be of *kaphavrita-vyana* and *udana*.

While looking for treatment aspects mentioned that, in initial stages *shodhananasya*¹⁴ should be administered till *kaphakshaya* occurs. After that, *nasya* can continue with other suitable drugs. If symptoms like cognitive disturbances are there, *shiro-basti* is mentioned. After the course of treatment *rasayanas*¹⁵ is administered like *kapikachu*, *bhallathaka*, *chitraka*, *shankupushpi* are the commonest single drug *rasayanas* used.

CONCLUSION

The present case study signifies the role of early detection and treatment of Parkinson's disease. The *chikitsa* should be based on *avarana* concept and the *adhishtana* and *doshapradhanyata* of *vyadhi*. in the initial stages, much more importance is given to *kapha* and in later stages to the vitiated *vata*. After *kapha* is brought under control, the management aims at normalizing the *vata-dosh*. As the process of *avarita* and *avarana* is having a chance of relapsing, the therapies like *rasayana* having a definite role in the management of this type of diseases. In *mahakalyanaka ghrta*, *kapikachu*

is a ingredient and it contains *jeevaniya gana* drugs like *kakoli*, *ksheerakakoli*, *meda*, *mahameda*, etc. thus it will helps to prevent neurodegeneration. And *brahmi* is also a ingredient in *mahakalyana ghrita* which is *medhya* and will act upon particularly in these type of diseases. *Ksherabala taila* is having a action of *rasayana* and *indriyaprasadana* thereby act upon this disease. *Vacha churna* also plays an important role in the treatment of *kampavata* as it is *laghu* and *tikshna* in *guna* and *kapha shamaka*. *Vacha churna* is *samjaprabodhana*. The results obtained after treatment was remarkable. As treatment methodology adopted in this case has been encouraging, especially where other systems of treatment failed, it is desirable that further studies and clinical trials be conducted in a few more similar cases to arrive at a decisive conclusion about the choice of treatment and to improve the success rate.

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CORRESPONDING AUTHOR

Dr. Sreelakshmi

PG Scholar

Department of PG Studies in Kayachikitsa
SKAMCH&RC, Vijayanagar,
Bangalore, Karnataka, India

Email: Sreelakshmi500@gmail.com

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