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

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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 instability. 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, nasya, shirobasti and nasya. The medicines like ksheerabala taila, mahakalyanaka ghrita; 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 disorder. 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 origin.

On the basis of signs and symptoms, Parkinson’s disease can be correlated with Kampa-vata a disease described under the heading VatajaNanatmaja7 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 failure. 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 levy bodies
• Multiple system atrophy

**DIAGNOSIS**
The case had been diagnosed as Parkinson’s disease as it fulfills the cardinal features of this disease as follows:

- Tremor
- Rigidity
- Bradykinasea or slowness in movements
- Masked face
- Emotional factors

**Intervention**
The conservative treatment given in present study—

**Table 1**

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

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

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>RIGHT LEG</th>
<th>LEFT LEG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tremor</td>
<td>BT</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>RIGHT HAND</th>
<th>LEFT HAND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tremor</td>
<td>BT</td>
<td>3</td>
</tr>
</tbody>
</table>

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

EFFECT OF TREATMENT IN SPEECH

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>BT</th>
<th>AT</th>
<th>% Relief</th>
<th>AT1</th>
<th>% Relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEECH</td>
<td>BT</td>
<td>3</td>
<td>AT</td>
<td>0</td>
<td>% Relief</td>
</tr>
</tbody>
</table>

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

EFFECT OF TREATMENT IN BRADYKINASEA

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>BT</th>
<th>AT</th>
<th>% Relief</th>
<th>AT1</th>
<th>% Relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRADYKINASEA</td>
<td>BT</td>
<td>2</td>
<td>AT</td>
<td>0</td>
<td>% Relief</td>
</tr>
</tbody>
</table>

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 dependent on proper lifestyle and daily regimens 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\textsuperscript{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 kaphavritaudana\textsuperscript{12} and kaphavritavyana\textsuperscript{13} will be affecting in initial stages. The other like pranavata also getting affected in later stages. Chesh-tahani and gatisanga are features of kaphavritavyana. Vaksanga will be of kaphavritavyana and udana.

While looking for treatment aspects mentioned that, in initial stages shodhananasya\textsuperscript{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 rasayan\textsuperscript{15} is administered like kapikachu, bhallathaka, chitraka, shankushpushpi 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 adhishta-na 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-dosha. 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 ghrita, 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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