Case Report

Role of Jyotishmati Taila Nasya in the Management of Parkinson’s Disease

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Abstract: Parkinson's disease is a slowly progressive disease of late adult life and is one of the most prevalent neurological disorders. In Charaka Samhita 'Vepathu' has been described as one of eighty types of Nanatmaja disorders of Vata and Kampa has been mentioned as one of the Vatikavikara. Because of its crippling nature and non-availability of curative treatment, this disease has remained a great problem in the aging society. Though in modern medical science a lot of research work has been done still no definite radical therapy is available for this disease. Ayurveda, the ancient science of life being always remains the first choice of treatment for chronic disabling disease. Many simple unexplored treatment wonders are hidden in Ayurvedic texts that have definite success in management but are not clinically use because of lack of knowledge, lack of scientific validation or above all lack of faith. This paper is about management of a known case of Parkinson with non-invasive, non steroidal, cost effective and safe Ayurvedic treatment.

Keywords: Ayurveda, Nasya, Kampavata, Parkinson’s disease.

INTRODUCTION
Parkinson’s disease is a progressive neurodegenerative disorder. The disease affects approximately 2 out of 1000 people, and most often develops after age of fifty, the clinical course is chronic and progressive with severe disability attained after approximately ten years.

On the basis of signs and symptoms, Parkinson’s disease can be correlated with Kampavata a disease described under the heading Vata.Nanatmaja disorders of Vata and Kampa in Ayurveda. In time of Caraka and Susruta cluster of symptoms like Kampa (tremor), Stambha (rigidity), Chestasanga (bradykinesia and akinesia), Vakvikriti (disturbance in speech) etc. were described in different contexts, and are clubbed as part of Vatika (neurological) disorders [1, 2]. As a separate clinical entity of Kampavata was first narrated by Acarya Madhavakara (author of Ayurvedic treatise Madhava Nidana) under the name of “Vepathu”. However, it was the Basvarajiyam who for the first time 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 [3].

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 new stereostatic 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 Report

A male patient of age 62 year presented with the complaint of tremor in upper limb (resting tremor and pin-roll type), slowness in movement and slightly slurred speech. The symptoms developed within six months and have slow progression. There was no history of any trauma, any other chronic illness like diabetes, hypertension etc.

Clinical Examination
Dashvidha Pariksha
Prakriti : Vata Pittaja
Vikriti : Vataja kaphaja
Sara: Madhyama
Samhana : Madhyama
Ahara Shakti :
Abhyarana Shakti : Avara
Jarana Shakti : Avara
Vyayam Shakti : Avara
Vaya : Vridha
Satva : Madhyam
Satyama: Madhyam
Bala : Avara

Astavidha Pariksha
Nadi : Vata Kapha (64/min)
Jihva : Malavritta
Mala: Niram
Mutra: Bahumatrata
Sabda: Kshama, Kala (low tone speech)
Sparsa : Raksha (dry, rough)
Drika : Samanya
Akriti: Samanya

Samprapti Vighatana
Dosha: Vataja kaphaja (Vata dominated)
Dushya: Ras, Rakta, majja.
Srotas : Rasvaha, Raktavaha, vatavaha.
Adhisthana: Shira, hridaya
Samuthana: Pakvashya
Agni: Manda

General Physical Examination
B.P.=130/90mmHg, P/R = 64/min, Pallor-ve, Icterus-ve, Cynosis-ve, Clubbing-ve, Oedema –ve.
CVS: S₁ S₂ Normal
Chest: B/L equal air entry with no added sound
CNS: Higher function normal

Reflexes
Upper limb: +3, 3+
Lower limb: knee Jerk 3+ (B/L)
Ankle Jerk: 2+
Plantar response: extensor
Muscle Power: 5/5 in both Upper & lower limbs, sensory intact.
Muscle tone: Cog wheel type rigidity in B/L upper limbs more pronounced in right side.
Muscular Atrophy: absent

Sign & Symptom grade before treatment
Kampa (Tremor) - +1
Gatisanga (bradykinesia) +1
Vakavikriti (disturbance in voice) +1
Stambha (rigidity) +1

Table 1: Signs & Symptoms Grading Scale

<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, spilt consonance but understandable speaks free with examiner</td>
<td>Patients sit properly but Cog-wheel 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 disappears during night</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>
<tr>
<td>0</td>
<td>No tremor</td>
<td>Can walk brisk without aid</td>
<td>Normal speech</td>
<td>No rigidity</td>
</tr>
</tbody>
</table>

Assessment of Akinesia & Bradykinesia
Following tests were applied to assess the effect of therapy on bradykinesia

Picking of Pins with hands
Buttoning time
Marie sign (Blink rate per minute)
Rapid alternating movements (Score)
Chest expansion
Walking time

Investigation
TLC =6400/cumm, Plt= 238000/cumm, N 58%, L₂5%, M₀₂₅, E₀₁₅, B₀₀₆, Hbgm= 12.4gm/dl, Total RBC Count= 3.89million / cumm, RA Factor= -ve, S. Bilirubin =0.8mg/dl, FBS= 100mg/dl, B.Urea= 24mg/100ml, S.Cretanine= 0.8mg/100ml, S.Cholesterol= 124.0mg/100ml, S.Triglyceride =
Treatment

According to Ayurveda Parkinson disease can be correlated with Kampavata a disease comes under the heading of Vatavadyadi. Therefore management was planned to alleviate the Vata. Here it is important to mention that in Kampavata vata is vitiated due to dhautkshaya as well as avarana. Ayurveda says that nose is the entrance of head i.e. medicine given through nose reaches directly into brain.

Nasya therapy

For this very purpose, Jyotishmati taila was chosen in the dose of 4 drops/nostrils for seven continuous days.

Administration of Nasya

The procedure of giving Nasya therapy may be classified into the following three headings

Purvakarma (Pre-measures)

Pradhanakarma (Nasya therapy)

Pashchatkarma (Post measures)

Purvakarma

Before giving Nasya, prior arrangement of the material and equipments should be done.

Preparation of patient

1. Patient should take light food at least half an hour before the procedure.
2. Natural urges should not be suppressed and should be passed before main procedure.
3. Now the patient gets ready for Nasya karma. He should lie down on Nasya Shayya (special bed for procedure). Before Nasya, Mridu Abhyanga (mild massage) should be done on scalp, forehead, face and neck for 3 to 5 minutes by medicated oil like Bala Taila, Panchaguna Taila etc [4].
4. Snehatana (oral intake of oil) should not be given immediately before Nasyakarma [5].
5. According to Ayurvedic texts Svedana should not be given to the head. Mridu Svedana (mild sudation) may be given for elimination of Doshas and liquification of Doshas. Tapa sveda (a type of mild sudation) may be given on Shira (forehead), Mukha (face), Nasa (nasal area), Manya, Griva and Kantha (anterior and sides of neck region) region. Cloth dipped in hot water may be useful for Mridu Sveda.
6. After Svedana smooth massage should be applied on regions of Gala, Kapola and Lalata.

Pradhanakarma [6-8]

The patient should lie down in supine position in head lowered position and foot part is to be slightly raised. Head should not be excessively flexed or extended. After covering the eyes with clean cotton cloth, the tip of the patient’s nose was raised with the left thumb and with the right hand the luke warm medicine (Sukhoshna drug) was dropped in both the nostrils in proper way [9].

Paschatkarma [10-12]

After administration of medication through nasal passage patient should lie in supine (Uttana) position for about 2 minute or for counting numbers upto 100. After an administration of Nasya feet, shoulders, palms and ears should be massaged. The head, cheek and neck should be again subjected to sudation [13].

Note

The patient should avoid swallowing of Nasya Aaushadhi [14]. Patient should spit out the excessive medicines which have come into the oropharynx [15]. Medicated Dhumapana and Gandusha are advocated to expel out the residue mucous lodged in gullet (Kantha) and Shringataka.

Treatment after Nasya Therapy

After the completion of Nasya therapy, patient was put on following oral treatment:

<table>
<thead>
<tr>
<th>Ashwagadha curna - 3g</th>
<th>Twice in a day, boiled with one cup of water till one cup of milk remains.</th>
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<tbody>
<tr>
<td>Madhuyasti curna – 3g</td>
<td>Arjunarista- 3TSF Lauhasava – 3TSF twice in a day after meal mixed with equal amount of water</td>
</tr>
</tbody>
</table>

RESULT

There was significant improvement found in the patient after seven days treatment with Jyotismati taila nasya. Tremors were totally abolished (0 grade), patient was able to walk without any aid (bradykinesia = 0 grade), the speech was also improved (grade=0) and no rigidity was observed after completion of treatment (grade = 0). There was no side effect observed during the treatment as well as after the completion of treatment.

DISCUSSION

Kampavata is a Nanatmaja disorder of Vata. In Ayurvedic texts all the symptoms of Parkinson disease is not clumped under the heading of single disease rather the symptoms are described as types of Vatavadyadi. A more precise description of Kampavata was firstly found in Basavarajiyam (1400 AD). As in Ayurvedic classics syndromes are described rather than disease and therefore following the pattern Kampavata is not described as separate entity and described as a type of vatavyadi that denotes that this symptom appears when there is defect in nervous system and may accompanied with many other symptoms according to involvement of different component of nervous system.

Avarana and Dhatuksaya are the two basic processes which incite Vata, in Kampavata both causes are active. There is depletion of Rakta dhatu and avarana of
prana, vyana and samana [16]. Prana vyayu is vitiated and causes obstruction of samana as well as vyana vyayu. Thus there is mainly vitiation of Prana vyayu, residing at chest and head. Nasya is said to be the best treatment for the disease of head and neck mainly those that are related to brain as this route provides direct administration of the drug to the brain escaping the need of the drug to cross the blood brain barrier. Therefore it gives significant improvement in short duration. Considering this concept, Nasaya was chosen for the management of Parkinson’s disease. Jyotismati taila is chosen as sadhana nasya and avara (minimum) dose of it’s given to the patient (4 drops/ nostrils). Jyotismati (Celastrus paniculata) is included under medhya dravya (memory booster/ neuro regenerator).

Scientific studies showed that it stimulate a significant decrease in the brain levels of malondialdehyde, with simultaneous significant increases in levels of glutathione and catalase. The findings of research study indicate that the aqueous extract of Celastrus paniculatus possess cognitive-enhancing properties and an antioxidant effect [17]. Ashwagandha (Withania somnifera) and Madhuyasthi (Glycyrrhiza glabra) are also included in medhya rasayana group and scientific studies proved their role in neuroregeneration [18-20]. Therefore they were selected to maintain the ongoing process of nuro-regeneration. According to principal of Ayurveda, there is depletion of Rakta dhata in Varatvayan therefore to replenish it, Lauhasava (an iron preparation) and Arjunarista (cardiac protective drug) were added during follow-up trial period.

CONCLUSION

Though it is a case study and available data is not sufficient for postulating any exact conclusion regarding the mode of action of drug and an intensive scientific study is required to hunt the mechanism of drug and its future prospective. But then also from this very preliminary study it can be concluded that nero-regeneration is might be possible with certain drugs, if they are given through proper route and in proper dose. The only need is to document such studies to make some good future research proposal.

REFERENCES