IAMJ

DISSECTING PARKINSON'S DISEASE AND MANAGING IT WITH AYURVEDA: A CONCEPT

Amulya G V[1], Shaila B[2], Ananta S Desai[3]

[1]PG Scholar, [2]Associate Professor, [3]Professor & Head,
Department of PG studies in Panchakarma
Government Ayurveda Medical College, Bengaluru, Karnataka, India

Corresponding Author: amulya.gv2019@gmail.com

Check for updates

ABSTRACT

Parkinson's Disease (PD) is an akinetic rigid syndrome and about 1% of the people above 60 years are affected by it. Ayurveda scriptures have no first-hand reference to this condition nor its symptoms, comprehended in one place. In the initial stages, slowness in moving the arms and legs is noticed. The daily activities like dressing, feeding, and brushing the teeth are affected and gradually worsen. Having to depend on others for the same, in the later stages of the disease is a major cause of depression in patients with PD. The presence of Lewy bodies as a result of degenerating neurons confirms PD. The exact cause of PD is not known. An unambiguous description of *Kampavata* is seen in the book *Basavarajeeyam* and the symptoms are close to those of Parkinson's Disease. A few symptoms of Parkinson's Disease also mimic those seen in the conditions of *Avrutha vata*. For treatment purposes, PD can be classified into premotor phase and motor phase. The motor phase can again be classified into *Kevala vataja* and *kapha-vataja*. In the condition where bradykinesia and rigidity are predominant, treatment should be aimed at removing *kapha avarana* and then alleviating *Vata,* followed by *Brihmana and Rasayana.* In features like memory impairment, *Snehana* with *Ghrutas* are beneficial. Counselling the patient as well as their family becomes a major part of supportive care. There is a need for a holistic approach of medicinal intervention, counselling, and modification of tools and their place of living to help the patient carry out the activities of daily living with minimal discomfort.

Keywords: Parkinson's Disease; *Kampavata; Panchakarma; Rasayana*

INTRODUCTION

The disorders resulting from the dysfunction of the basal ganglia can be classified as extrapyramidal disorders. Though there is no significant paralysis, they can result in abnormal movement and posture. The abnormalities can be grouped into either akinetic rigid syndrome and hyperkinesis or dyskinesias[1]. Parkinson's Disease (PD) is an akinetic rigid syndrome and about 1% of the people above 60 years are affected by it. Ayurveda scriptures have no first-hand reference to this condition nor its symptoms, comprehended in one place. Hence, an attempt is made here to understand PD in the lines of Ayurveda and to treat the condition on the lines of Ayurvedic principles, to wean the patients off the allopathic medications which are known to cause side effects with prolonged use.

Clinical features of Parkinson's Disease: In the initial stages, slowness in moving the arms and legs is noticed. The spouse or a family member may notice the slowness of the patient in turning while in bed. Resting tremors of 4Hz to 6Hz, cogwheel rigidity, and bradykinesia are the classical triad of PD. Other features include a masked face, Pill-rolling tremor, and Lead-pipe rigidity[2]. The patient has a festinating gait and has difficulty turning and getting up from the chair. Hypophonia and micrographia are also distinctive features of PD. Sialorrhoea and seborrhoea are commonly seen. The daily activities like dressing, feeding, and brushing the teeth are affected and gradually worsen. Having to depend on others for the same, in the later stages of the disease is a major cause of depression in patients with PD. On clinical examination, the Glabellar tap is positive. The patient may also complain of sleep disturbances, depression, and anxiety. In the later stages, the posture becomes stooped and the patient's routine is affected by what is called, the freezing phenomena.

Pathology: There is depletion of dopaminergic neurons as a result of nigrostriatal tract degeneration. The presence of Lewy bodies as a result of degenerating neurons confirms PD.

Etiology: The exact cause of PD is not known. However, a few factors like long-term exposure to MPTP, a toxic product of heroine, PARK 1 gene mutation, and diminishing of viable mitral neurons as a result of ageing, are believed to cause PD.

Investigations & treatment in modern science: Dopaminergic terminals can be studied with the help of PET and SPECT and it helps to differentiate PD from other Parkinson's plus syndrome. Different classes of medicine in allopathic science used to treat Parkinson's Disease are Dopamine agonists, MAO-B inhibitors, and anticholinergics. These are used to manage the symptoms in an attempt to improve the quality of life. However, their long-term use is known to cause hallucinations, confusion, anorexia, nausea, and diarrhoea.

LITERATURE REVIEW: Various *lakshanas* like *Kampa, Sthambha, Cheshta nasha, Vak vikruti* are seen scattered in the scriptures Charaka Samhita and Sushrutha Samhita. *Kampa* is found as a symptom in *snayugata vata* in Sushrutha Samhita and *Akshepa* has features like *sthambha* and abnormal movement. In Bhela Samhita, *kampa* is mentioned as a symptom of *Asthi-majjagata vata*. In Ashtanga Sangraha, *kampa* is said to be a symptom of *Sarvanga-gata vata*. Acharya Madhavakara was the first one to describe the *lakshanas* of *Kampavata* under a condition called *Vepathu*. But an unambiguous description of *Kampavata*[3] is seen in the book *Basavarajeeyam* and the symptoms are close to those of Parkinson's Disease.

Correlation of Parkinson's Disease in Ayurveda: A few symptoms of Parkinson's Disease also mimic those seen in the conditions of *Avrutha vata*. *Lakshanas* like *Sarva gatra guruta* and *gati sanga* are seen in *Kaphavruta vyana vata*[5]. *Lakshanas* like *vak-swara graha, guru gatrata* are seen in *Kaphavritta udana vata*[4]. *Sthabdha, chestha hani* are seen in *udana avruta vyana*. Taking into consideration all these concepts, we can infer that *Kampavata* can be either *Kevala vataja* or *kapha-vataja*. *Kampavata* though predominantly involves *Vata*, also has involvement of *Pitta* and *Kapha* in varying degrees. According to recent studies, the affected neurons are believed to release proteins called alpha-synuclein. This can be considered an inflammatory response

correlating it to *Pitta*. These released alpha-synuclein aggregate and form clumps known as Lewy bodies, and this can be correlated to *Kapha Dosha*. In recent findings, neurologically healthy subjects who were suspected of having pre-clinical PD were found to have misfolded alpha-synuclein in the autonomic nerve plexi of their gastrointestinal tract. The colon and rectum are innervated by abdominopelvic splanchnic neurons, which are a part of the autonomic nerve plexus. This is in support of the fact that the lower gastrointestinal tract is the seat of *Vata Dosha* and the site of origin of any *Vataja Vyadhi*[9].

Treatment in Ayurveda:

For treatment purposes, PD can be classified into premotor phase and motor phase. Features of the premotor phase are constipation, articular pain, depression, fatigue, orthostatic hypotension, etc. These symptoms can be treated with medications that are aimed at *Ama pachana*, *Agni deepana*, and *Vatanulomana*. *Nagaradi churna*, *Chitrakadi vati*, *Vidanga tanduladi yoga*, etc., can be used for *Ama pachana*; *Panchakola churna, Ashta churna,* etc., can be used for *Agni deepana*; *Gandharvahastadi eranda taila* and *Abhayarishta* can be used for *Vatanulomana*. Motor phase can again be classified into *Kevala vataja* and *kapha-vataja*. A condition where tremor and postural instability are predominant can be considered *Kevala vataja*. This has to be treated with *vatahara* drugs followed by *Brihmana* and *Rasayana*. In a condition where bradykinesia and rigidity are predominant, treatment should be aimed at removing *kapha avarana* and then alleviating *Vata,* followed by *Brihmana and Rasayana*. For conditions of *stambha, rooksha* and *kaphahara chikitsa* like *Nasya* with *Vacha churna*, *Lashuna rasa* and *Rasnadi churna*, *Udvartana* with *Kottamchukkadi churna*, *Yavakulatthadi churna*, and *Kaya Seka* with *Dhanyamla*[6], *Dashamula-chincha kashaya* can be given. Oral medications like *Dhanadanayadi kashaya* and *Ashtavarga kashaya* can be administered. When symptoms like rigidity and bradykinesia are reduced, *vatahara chikitsa* needs to be administered. For this purpose, *Nasya* or *Pratimarsha nasya* with *Ksheerabala taila*, *Karpasastyadi taila*, *Shatbindu taila*, *Masha taila, Madhuyashtyadi taila* can be administered. Procedures like *Shashtika Shali Pinda Sweda* and *Taila dhara* with *Dhanvantaram taila, Sahacharadi taila,* and *Ashwagandha Balalakshadi taila* can be administered. *Shodhana chikitsa* can be planned in later stages. For this purpose, *Snehapana* with *Mashadi taila, Yashtimadhu taila, Dhanvantaram taila, Mahamasha taila, Sahacharadi taila* can be given. The same *yogas* can either be used as *Shamananga Sneha* or *Shodhananga Sneha* and in *Anuvasana Basti*. For *Virechana*, *Ghandharvahastadi eranda taila, Nimbamrutadi eranda taila* can be used. This can be followed by *Dashamooladi niruha basti* and *Mustadi yapana basti*. *Amalaki rasayana*[7] can be given at the end of *Shodhana.*

In features like memory impairment, *Snehana* with *Ghrutas* are beneficial. For this purpose, *Kalyanaka Ghruta, Mahakalyanaka Ghruta,* and *Panchagavya Ghruta* can be selected. Procedures like *Shirobasti* and *Shirodhara* with *Ksheerabala taila* and *Himasagara taila* if adopted, will be an added benefit. *Ekamulika prayoga* can be done with *Kapikachu beeja churna*[8], *Brahmi, Vacha, Shankhapushpi,* and *Jyotishmati.*

DISCUSSION

The symptoms presented in Parkinson's Disease are mainly because of decreased dopamine levels. As the disease progresses, it becomes more difficult for the patient to carry out the Activities of Daily Living with ease and they eventually become dependent on others. Adding to the problem, the patient also develops depression. Hence, counselling the patient as well as their family becomes a major part of supportive care. PD, though closely resembles *Kampavata,* cannot be correlated to one disease alone as its features are seen in many other conditions that are explained in Ayurveda. In a clinical setting, the condition can be presented with either *Kevala vataja lakshanas* or *kapha vataja lakshanas*. It is important to decipher the etiology and stages in each patient and to tailor the treatment accordingly. Since it is a *Jara-Janita vyadhi, Rasayana Cchikitsa* in later phases of the treatment also proves to be beneficial. This treatment has to be complemented with occupational therapies like

handwriting aids, computer modification, etc. Graded exercises like walking, fixed-bicycle, or fixed-wheel exercises can improve stiffness and slowness of movement. The use of low-level visual cues can prevent gait freezing. Dinnerware adaptations, grooming aids, and modifications in the toilet and bathroom are to be considered which will help the patient in carrying out their activities of daily living independently.

CONCLUSION

Though the treatment doesn't necessarily aid in the reversal of pathology, with the right management, the condition can be greatly improved. However, this requires a holistic approach of medicinal intervention, counselling, and modification of tools and their place of living to help the patient carry out the activities of daily living with minimal discomfort.

REFERENCES

1. Munjal, Y., 2015. API Textbook of Medicine. 10th ed. Mumbai: Jaypee Brothers Medical Publishers (P) Ltd., pp.1987-1989.
2. De Maagd G, Philip A. Parkinson's Disease and Its Management: Part 1: Disease Entity, Risk Factors, Pathophysiology, Clinical Presentation, and Diagnosis. *P T*. 2015;40(8):504-532.
3. Vaidya varashree Basavaraj. Basavarajeeyam, Sri Govardhan Sharma, editor. 1 st ed. Vatavyadhi nidana lakshana chikitsa Chapter 6. Nagpur: Gorakhanath Yantralaya Publication; 1978p. 100-101
4. Sharma RK, Vaidya Bhagavan Dash. editors. Agnivesha, Charaka Samhita; English Translation. Chikitsa Sthana. Vol V. Chapter 28. 224. Varanasi. Chaukhamba Prakashan. 2013. p. 81.
5. Sharma RK, Vaidya Bhagavan Dash. editors. Agnivesha, Charaka Samhita; English Translation. Chikitsa Sthana. Vol V. Chapter 28. 228. Varanasi. Chaukhamba Prakashan. 2013. p. 82.
6. Sharma RK, Vaidya Bhagavan Dash. editors. Agnivesha, Charaka Samhita; English Translation. Vimana Sthana. Vol I. Chapter 8. 140. Varanasi. Chaukhamba Prakashan. 2013. p. 296.
7. Sharma RK, Vaidya Bhagavan Dash. editors. Agnivesha, Charaka Samhita; English Translation. Chikitsa Sthana. Vol III. Chapter 1. 75. Varanasi. Chaukhamba Prakashan. 2013. p. 22.
8. DR.J.L.N. Shastry; Dravyaguna Vijnana Foreward by Prof K.C. Chunekar volume II; Chaukhambha Orientalia, Varanasi, 2012;176
9. Gerson, Scott & Ayu, M. (2019). The Ayurvedic Approach to Parkinson's Disease (Kampavata). 10.13140/RG.2.2.18243.04644.