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Effect of *Rajat Bhasma* with *Smritisagar Rasa* in Parkinson

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ABSTRACT

Parkinson is a disorder of nerve cell in the brain that is produced by the Dopamine, The global incidence is about 0.2/1000 and a prevalence of 1.5/1000 in U.K. The brain revels a loss of pigmentation in the substania nigra and locus of ceruleus, loss of pigmentation is accompanied by gliosis in the substania nigra and the other basal ganglion. Symptoms appear after a 60% to 80% loss of pigmented neuron. In Ayurveda *Rajat Bhasma* which has *Vata-Shamak, Madhura Vipaka, Kashaya-Amla Rasa, Sheetala, Snigdha* and *also Brimhana* so it play important role in nervous system and *Smiritisagar Rasa* has *Tikshna, Ushna, Vyavayi* as well as *Yogvahi* properties*, Kapha-vata Shamak* and *Bhawna Dravya* are *Brahmi, Vacha, Malkangni* also helpful in mental slowness and depression. Aim of this article is to know about the disease and its management by Ayurvedic perspective.

Key words: *Parkinsion's, Substania nigra, Rajat Bhasma, Smiritisagar Rasa.*

INTRODUCTION

Parkinson's disease is the second commonest neurodegenerative disease; exceeded only by Alzheimer disease. Its affected men and women of all races, all occupation and all countries. The mean age of onset is about 60years.[1] The hallmark of Parkinson's disease is degeneration of melanin-containing dopaminergic neurons of the substania nigra and typical neuronal inclusion known as Lewy bodies.[2] The condition has an an annual incidence of about 0.2/1000 and a prevalence of 1.5/1000 in U.K. several studies have suggested that the frequency of Parkinson disease is higher Caucasian American then in African America.[3] This is the syndrome characterized by poverty of movement (akinesia), rigidity of muscle and tremor. Parkinsonism is a syndrome of chronic progressive disorder of motor function and is clinically characterised by tremors which are most conspicuous at rest worsen with emotional stress; other feature are rigidity and disorder gait and posture. Parkinson is caused by several degenerative diseases, the most important being Parkinson's disease other causes of parkinsonism are unknown but trauma, toxic agent, drug (dopamine antagonist).[4] The gait is slow and shuffling. With asymmetric involvement of lower lim, there could be anoticeable limp. The associated arm swing is reduced, Patients may have a tendency to advance rapidly with short steps (festinating gait). Sometimes the feet may appear to be glued to the floor, the so-called freezing phenomenon. When combined with postural instability, freezing may result in forward falls.[5] Parkinson's clinical features are mask face, slurred, indistinct speech, festinate gait, stooped posture, tremors and rigidity.[6] Genetic factor has been suspected but definite evidence are lacking, heredo-familial association has not been conform. Surgery for Parkinson's disease has a long history. Beginning in the 1950's, thalamotomy (lesioning of the motor thalamus) and pallidotomy (lesioning of the globus pallidus) were performed

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before a solid scientific basis for these procedures was established. When treatment of Parkinson's with levodopa become widespread in the 1960's, surgical treatment declined. In the 1990's, several factors combined to produces a resurgence of interest in surgery for Parkinson's disease.[7] The onset of the disease is gradually affected just above the age of 60yr. in *Ayurveda* Parkinson is very well correlated with *Kampvata.*[8] in Parkinson *Chala Guna* of *Vata* is very increased so *Rajata Bhasma*[9] [10] [11] with *Smritisagar Rasa*[12] [13] Both medicine also act as a tranquilizer which prevent the excessive motor function, so that it play very important role to treat the disease.

OBJECTIVES

To get absolute knowledge about the Parkinson disease and to know the effect of *Rajat Bhasma* and *Smritisagar Rasa* in management of Parkinson disease.

Etiology[14]

- Idiopathic - Paralysis
- Post encephalitic Parkinsonism
- Trauma - Head injuries
- Carbon - monoxide intoxication
- Metallic Poisoning
- Drug - Reserpine, Phenothiazine, haloperidol, metaclopramide, tetrabenzine can cause reversible parkinsonism disease.
- Familial Parkinsonism - Purely Parkinsonism disease on a familial basis. The responsible (alpha-synuclin) gene has recently identified.[3]

Clinical Features

Symptoms appear after a 60% to 70% loss of pigmentation neuron and strapped dopamine occurs, clinically finding including;

Clinical features are divided in to two categories like,[15]

1. **Specific features:** Tremors, rigidity, hypokinesia (slowness of voluntary movement), abnormal gait, posture, blephraclonus (fluttring of closed eyelid).
2. **Non-Specific Features:** Tiredness, aching limbs, mental slowness.

a. **Tremors -** The characteristic 4-7Hz pill rolling movement between thumb and finger rest tremor usually decrease with action. Tremor is often asymptomatic at first.[16]

b. **Rigidity -** Stiffness develop throughout the range of limb movement and is equal in opposite muscle group also found spasticity. This lead pipe increase in tone is usually more marked in one side. It is also found in neck and axial muscle.

c. **Akinesia -** Poorty and slowing of movement is an additional handicap, distinct rigidity. Rapid fine finger movement such as a piano playing become indistinct, slow and tremulons. Facial immobility give a mask like semblance of depression.

d. **Speech -** Pronunciation is initially a mono-note but progressive to characteristic tremulous slurring dysarthria result of combined akinesia, tremor and rigidity. Speech may be eventually be lost completely.

e. **GIT -** Including heartburn, driblling, dysphagia, constipation, weight loss, urinary dysfunction, skin is glossy and excessive sweating.

f. **Postural changes -** A stoop is characteristic. GIT become festinate and suffering with poor are swinging called the posture is Simian to describe Ape-like forward flexion.

Fall are common in later stages on disease and suffer toppling like a falling tree.

Pathophysiology

A small number of cases are familial in nature and mutations in several genes have now been identified as an underlying causes. The methyl-phenyl-tetrahydropyridine cause severe parkinson's in young drug users. Reduced dopaminergic output from the substania nigra to the globus pallidus leads to reduced

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inhibitory effects on the subthalamic nucleus, neurons of which become more active than usual in inhibiting activations of the cortex. This in turn result in bradykinesia. In Parkinson's degervation leads to increase firing of neurons in the sub-thalamic nucleus and globus pallidus , resulting in excessive inhibition of the thalamus, reduced activation of cortical motor system, and the development of Parkinson's features.[17]

Investigation[18]

The diagnostic is made very clinically as there is no any diagnostic tools for Parkinsonism disease. Some time it's necessary to investigate to exclude other causes of disease if there are unusual features.

Patients presenting before the age of 50yr are usually tested for Klison disease and done CT-scan, MRI of head may be needed if there are any features suggestion of pyramidal lesion, cerebral or autonomic involvement.

Management of Parkinson's in Ayurveda

SN	Drug	Ingredients	Action
1.	*Rajat Bhasma*[19]	*Rajata*	*Vata-hara, Kaphanashaka, Vaya-sthapana, Balya-Vrihana, Akshep-shamak, Medhya (Budhivardhaka), Madhur-vipak, Kashaya* and *Amla Rasa, Sheetala, Saraka, Lekhana, Ruchiprada, Snigdha.*
2.	*Smriti Sagar Rasa*	*Shudha Parada, Shudha Gandhaka, Shudha Hartala, Shudha Manahshila, Tamra bhasma.*	*Vata-shamaka, Kapha-shamak, Sheeta -veerya, Shamaka, Akshephagna, Teekshana, Ushana, Vyavayi.*

Bhavna Dravya of *Smritisagar Rasa*

No.	Drug Name	Properties	Action
1.	*Bramhi*[20]	*Laghu, Tikta, Kashaya, Madhura, Sheeta*	*Medhya, Kaphpittashamaka, Smritivardhaka.*
2.	*Vacha*[21]	*Katu, Tikta, Tikshana, Ushana*	*Medhya, Kaphavata Shamaka, Sangyasthapana, Akshepa Shamana.*
3.	*Malkangini*[22]	*Katu, Tikta, Tikshana, Ushana*	*Medhya, Balya, Kaphgna*

RESULT

Rajata Bhasma and *Smritisagar Rasa* is works conceptually on the basis of *Rasa, Guna, Veerya, Vipaka* and *Dhoshaghnata* act like a tranquilizer specially in motor reflexes and peripheral nervous-system which is very hyper active in Parkinsonism. So both drug are effective in the management of this disease.

DISCUSSION

According to all above sign and symptoms of the disease and properties or mode of action of *Rajata Bhasma* and *Smritisagar Rasa, Rajata Bhasma* which has *Vata Shamaka, Madhura Vipaka, Kashaya, Amla Rasa, Sheetal, Snigdha* and also *Brimhana,* so it play an important role in nervous system and *Smiritisagar rasa* has *Tikshna, Ushna, Vyavayi* as well as *Yogvahi* properties*, Kapha Vata Shamaka, Akshepaghna* and *Bhawna Dravya* are *Brahmi, Vacha, Malkangni,* they all are *Medhya* drug as well as properties like *Smritivardhaka*, *Sangyasthapana*, *Akshepashamana Balya*, *Kaphagna* also helpfull in mental slowness and depression. Both medicine also act as tranquilizer prevent the excessive motor function because in Parkinson, *Chala Guna* of *Vata* is increased. Due to its *Vatashamaka* and *Ushna Virya* above medicine also control tremors and rigidity in Parkinson's and

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Brahmi, Vacha, Malkangni is *Sheet-veerya, Shamaka, Akshepaghna* and act as a brain tonic.

CONCLUSION

Parkinson's disease is the second common neurodegenerative disease, exceeded only by Alzheimer's disease. Clinically it is characterized by rest tremor, rigidity, bradykinesia and gait impairment, known as cardinal features of the disease. Additional features can include freezing of gait, postural instability, speech difficulty, autonomic disturbances, sensory alteration, mood disorder, sleep dysfunction, cognitive impairment and dementia. All known as dopaminergic features because they do not fully respond to dopaminergic therapy.

In Ayurveda *Rajat Bhasma* and *Smritisagar Rasa* show very well effect due to all above feature and specially *Bhavna Dravya Bramhi, Vacha, Malkangini* these drug are very good brain tonic and works based on the *Rasa, Guna, Veerya, Vipka* as well as act like a tranquilizer and also slowness the degeneration process of the brain.

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