



Case Study on Patient with Parkinson's Disease

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ABSTARCT: Parkinson's disease (PD) is a one of the most important neuro-degenerative diseases of the basal ganglia and brain stem. It was reported that most PD patients preferred moderate intensity exercise, in the morning time, and with varied activities. One of the preferred activities was Yoga¹. Yoga, an ancient science, having components of physical activity, instructed relaxation and interoception, is emerging as a useful rehabilitation tool for chronic neurological ailments². Yoga has been shown to decrease oxidative stress, bring improvement in neurocognitive functions and mood, and enhance sensory motor performance. Yoga practices can increase dopamine and serotonin secretion and reduce cortisol secretion³.

Key words: Parkinsons, Yoga, Diet

INTRODUCTION: Parkinson's is a common neurodegenerative disorder affecting patients in large numbers throughout the world. Mainly caused by progressive damage to the brain over many years, the condition shows symptoms of spontaneous shaking of body parts of the body, decelerating movement and stiffness in muscles⁴. People suffering from Parkinson's also experience depression and anxiety. They experience loss of balance, sleep and memory. It remains the second most common neurodegenerative disorder and most common movement disorder. Its onset is usually seen in people older than 60 years of age. Yoga therapy for Parkinson's seems to be the call of the hour⁵.

It is estimated that around 30 million people in India suffer from various forms of neurological diseases. Yet, the awareness about various forms of neurological disorders is appallingly low. Mostly people suffering from these disorders often end up being teased and stigmatised. In certain cases this results in aggravating the problem⁶.

Types of Parkinson's and Parkinsonism:⁷

- Corticobasal Degeneration (CBD)
- Dementia with Lewy Bodies (DLB)
- Drug-induced Parkinsonism.
- Essential Tremor.
- Multiple System Atrophy (MSA)
- Progressive Supranuclear Palsy (PSP)
- Vascular (Arteriosclerotic) Parkinsonism.

Parkinson's signs and symptoms may include:⁸

- Tremor. A tremor, or shaking, usually begins in a limb, often your hand or fingers.
- Slowed movement (bradykinesia)
- Rigid muscles.
- Impaired posture and balance.
- Loss of automatic movements.
- Speech changes.
- Writing changes.

Cardinal Signs:⁹

- Bradykinesia
- Tremor
- Rigidity
- Postural instability

CAUSES: Parkinson's disease is caused by a loss of nerve cells in the part of the brain called the substantia nigra¹⁰.

Nerve cells in this part of the brain are responsible for producing a chemical called dopamine.

Dopamine acts as a messenger between the parts of the brain and nervous system that help control and coordinate body movements.

If these nerve cells die or become damaged, the amount of dopamine in the brain is reduced.

This means the part of the brain controlling movement cannot work as well as normal, causing movements to become slow and abnormal.

The loss of nerve cells is a slow process. The symptoms of Parkinson's disease usually only start to develop when around 80% of the nerve cells in the substantia nigra have been lost¹¹.

Case presentation: A 30 years old Hindu male patient working as a conductor in Delhi transport corporation came with the following problems such as slowed movement, rigid muscles, constipation, speech or writing changes, shaking in limbs/ neck and impaired posture. While examine we found her B.P. is 110/80mmHg and weight 60kg.

Intervention: Patient practiced yoga therapy session of one hour for 6 days per week for two months including loosening exercises, Asanas, Pranayamas, Meditation and Kriyas and followed diet which is advised during consultation.

Duration: 60 days

Frequency: One hour yogic practices for 6 days a week followed by proper dietary regimen.

Yoga Intervention:

Yogic sukshma vyayama: 10 min.

Buddhitatha dhritishaktivikasaka, Medashaktivikasaka, Manibandhasakti vikasaka, Kartalashakti vikasaka kriya

Yogic sthula vyayama: 5 min.

Urdhwagati, Rekhagati

Asanas: 20 min.

- Parvatasana – 2 rounds/1min.
- Upward Salute – 3rounds/2min.
- Standing Forward Bend- 3rounds/2min.
- Veerbhadrasana – 2rounds/1min.
- Vrikshasana – 2rounds/2min.
- Uttanmandukasana – 2round/1min.
- Balasana – 2round/1min.
- Bujhangasana – 3round/2min.
- Uttanapadasana -2round/2min.
- Savasana -1round/2min.
- Makrasana-1round/2min.

Pranayama:

- Anulom-vilom p. – 9rounds/3min.
- Bhramari p. – 5rounds/3min.
- Ujjai p. – 3rounds/3min.
- Sithali p. – 3rounds/2min.

Special practice:

Yoga Nidra – 10 min.

Meditation: Breath awareness, Om meditation or guided meditation focusing on the affected part. (5 min.)

Kriyas: Jalneti, Kapalbhati (weekly once)

Dietary Regimen: Advised to take alkaline foods with less oil, salt and spice.

Advised to eat a variety of whole grains, vegetables, fruits, milk and dairy products, and protein-rich foods such as beans.

Avoid:

Patients with condition of Parkinson's should avoid chocolate, tea, coffee, spices, salt, pickles, condiments, white flour (maida) & white sugar and derived products. Processed food items, tinned, canned, frozen foods should also be avoided ¹².

Objective data:

Patient has followed prescribed yoga practice with lifestyle modification for two months. He provided the following information:

- **Speech changes** - improve in lip movement and clarity in voice
- **Writing changes** – not much trouble in writing
- **Impaired posture and balance** – able to maintain posture or balance
- **Constipation**- bowel movement improved
- **Tremor in neck and limbs** – limbs stiffness improved, neck movement under control
- **Rigid muscles**- become little flexible compare to before.
- **Anxiety**- much better and getting proper sleep.
- **Memory and thinking skills** - improved



General examination results:

Weight –61kg, BP- 118/80mmHg

Discussion: A 30 years old Hindu male patient working as a conductor in Delhi transport corporation came with the following problems such as slowed movement, rigid muscles, constipation, speech or writing changes, shaking in limbs/ neck and impaired posture. He wanted to reverse back with his problem without any surgical intervention and allopathic medicines and get back to positive mental health. Parkinson's disease (PD) is a one of the most important neuro-degenerative diseases of the basal ganglia and brain stem. This patient was suffering from last so many years. This affected his mental health & stamina. Then patient took intervention of yoga & naturopathy followed by proper dietary regimen and improved himself.

Conclusion:

Regular yogic practices with proper medical counseling and guidance helped patient regain physical and mental health compare to previous condition. Yoga provided an alternative method for addressing some of the reversible factors that impact motor function in PD, as well as contributing to an improved psychosocial well being. In this case patient experienced the satisfaction within two months of regular practice and his investigation reports supported the results.

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