

CASE

Learning Objectives:

By the end of the CBL, students will be able to

- **Define Parkinson's disease and its signs and symptoms.**
- **Understand the pathophysiology of the given pathology.**
- **Describe tremors and its types.**
- **Differentiate between Parkinson disease and parkinsonism.**

A 67-year-old man had noticed involuntary shaking of his right hand when he was not doing anything. This abnormal movement disappeared when he started using his hand. Of late, family and friends were also complaining that he looked and moved slow, which was quite unlike him because he had an athletic personality. On examination he had expressionless face, resting tremors of his right hand, decreased swinging movements of right upper limb on walking along with marked rigidity.

1. What is the diagnosis?
2. What are its cardinal signs?
3. What happens to substantia nigra in Parkinson's disease?
4. What is tremor?
5. What is bradykinesia?
6. What is rigidity?
7. What is the difference between Parkinson's disease and parkinsonism?

KEY

1. Parkinson's Disease
2. Tremors at rest, bradykinesia and rigidity.
3. Condition occurs due to degeneration dopaminergic neurons in substantia nigra, which is an area in midbrain responsible for producing neurotransmitter, dopamine.
4. Tremor is defined as a rhythmic, involuntary, oscillating movement of a body part.
5. It is slowing down of body's ability to start and continue voluntary movements.
6. Continuous involuntary sustained muscle contraction.
7. Tremor, rigidity and bradykinesia when they occur due to certain obvious cause like ischemia, drugs, trauma etc are known as parkinsonism in contrast to idiopathic Parkinson's disease where the cause of degeneration is not known.