

## In Syndrome

### Parkinson Disease

#### **Definition :**

- Parkinson disease is a neurodegenerative disorder that mostly presents in later life with generalized slowing of movements (bradykinesia) and at least one other symptom of resting tremor or rigidity.

#### **Etiology :**

- The pigmented neurons that are lost in the substantia nigra are dopaminergic, and it is the loss of dopamine in subcortical motor circuitry that is implicated in the mechanism of the movement disorder in PD.
- The cause of PD has been linked to the use of pesticides, herbicides, and proximity to industrial plants.
- Some individuals have been found to develop parkinsonian like features after injection of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP).

#### **Epidemiology :**

- Affects 1 to 2 people per 1000 at any time.
- It is more common in men than women.

#### **Clinical Features :**

- Tremor, typically unilateral and present at rest.
- Slowness or bradykinesia.
- Rigidity
- A combination of bradykinesia and rigidity leads to – micrographia.
- Gait disturbance.
- Constipation, drooling, mood disorder and depression, REM sleep disorder and anosmia.
- Depression
- As the disease progresses, dementia with significant loss of cognitive function is common.



## *The Medical* **Bulletin**

### ***Diagnosis :***

- History and physical examination
- There is no specific laboratory or imaging study that can help make a diagnosis of PD.
- MRI is useful in narrowing the differential and excluding other conditions.
- Practically, one of the best ways of establishing a diagnosis of PD in a patient with suggestive symptoms is a clear response to Levodopa treatment.
- Imaging studies are useful for excluding other conditions.

### ***Treatment :***

- Pharmacologically, this is typically Levodopa. A dopamine agonist (Pramipexole, Ropinirole) may be started in younger patients.
- Most antiparkinsonian medications provide good symptom control for 3 to 6 years.
- A multidisciplinary approach to the management is essential. Patients do much better when a structured physical therapy program is employed.
- Deep brain stimulation has become the surgical procedure of choice.

### ***Prognosis :***

- The disorder leads to disability of most patients within ten years. The mortality rates of patients with PD is three times the normal population. While treatment can improve symptoms, the quality of life is often poor.

***Dr. C. Naveen Kumar***  
***Kangayam***