



CPD Online summary note

## **Psychiatric problems in Parkinson's disease**

By Jordi Serra-Mestres & Dr Suman Mukhopadhyay

### **Background**

Parkinson's disease is a neurodegenerative condition with a prevalence of 100–200/100 000 in the west. Although its motor signs and symptoms define Parkinson's disease, it has become increasingly recognised that patients affected by this condition frequently present with cognitive and psychiatric problems.

### **The classical manifestations of Parkinson's disease are:**

- resting tremor
- rigidity (of the 'lead pipe' variety, or with 'cogwheeling' if tremor is present)
- bradykinesia
- postural instability or loss of postural reflexes.

Symptoms may present unilaterally or with an asymmetrical severity. Parkinson's disease has a prevalence of 100–200/100 000 in the west and its age of onset is usually between 50 and 65 years, although early- and late-onset cases are often described.

In the great majority of cases, Parkinson's disease is sporadic, but in the last few years a number of genetic factors have been identified in a proportion of cases. Environmental factors have also been proposed.

Other clinical signs and symptoms of Parkinson's disease are:

**Masked face**  
**Hypophonia**  
**Micrographia**  
**Reduced arm swing**  
**Shuffling gait**  
**Festination (a tendency to accelerate in gait or speech)**  
**Positive glabellar tap or Myerson's sign**  
**Increased ipsilateral limb tone when the contralateral limb is active**  
**Hypersalivation**  
**Seborrhoeic dermatitis**  
**Autonomic dysfunction**  
**Stooped posture**  
**Increased perspiration**  
**Olfactory deficiency**  
**Fatigue**  
**Sexual dysfunction**

### **Pharmacological treatments**

The main treatments for Parkinson's disease are L-dopa, dopamine agonists, catechol-O-methyl-transferase (COMT) inhibitors, and anticholinergics. Intramuscular (i.m.) apomorphine is also used in cases of severe motor impairment. Some patients may benefit from neurosurgical interventions such as pallidotomy and deep brain stimulation of subcortical nuclei.

About half of the patients with Parkinson's disease treated with long-term L-dopa will develop motor fluctuations (including on-off phenomena) and dyskinesias at some point during the illness.

The main differential diagnoses of Parkinson's disease are:

**Drug-induced Parkinsonism**  
**Vascular Parkinsonism**  
**Progressive supranuclear palsy**  
**Multisystem atrophy**  
**Corticobasal degeneration**  
**Dementia with Lewy bodies**  
**(Alzheimer's disease with Parkinsonism)**  
**(Parkinsonism associated with frontotemporal degeneration)**

### **Neuropsychiatric disorders in Parkinson's disease**

The correct identification, categorisation, and management of NP symptoms in Parkinson's disease is paramount to avoid increasing distress in patients and carers, complications due to inappropriate treatment, increased dependency, and early institutionalisation, as well as to provide information and knowledge about the neurobiological basis of neuropsychiatric disorders occurring in neurological conditions (Ehrt & Aarsland, 2005).

The most common NP disorders and symptoms in Parkinson's disease are:

**Depression** – Occurring in at least 50% of cases  
**Anxiety** – Up to 40% of cases that are often comorbid with depression  
**Psychosis** – Visual hallucinations are the commonest psychotic phenomenon  
**Apathy** – Tends to be associated with cognitive impairment, especially executive dysfunction  
**Hedonistic homeostatic dysregulation** – Behavioural disorder related to misuse of DRT  
**Mild cognitive impairment** – In up to 36% of patients without dementia in the community  
**Dementia** – Remember Lewy Bodies (DLB) differential features below  
**Sleep disorders** – Up to 70% of patients report sleep disorders  
**Obsessive-compulsive phenomena** – Rare, however patients can develop repetitive or compulsive behaviours

But depression is the most common psychiatric problem in Parkinson's disease, occurring in at least up to 50% of cases.

### **The main clinical features of Lewy Bodies DLB are:**

- dementia
- fluctuating cognition, attention and alertness
- recurrent visual hallucinations, typically vivid and well formed
- Parkinsonism
- frequent neuroleptic sensitivity.

### **Conclusions**

The most frequent psychiatric problem in Parkinson's disease is depression, followed by anxiety, psychosis, cognitive dysfunction, and various types of sleep disturbance.

Most of these psychiatric and cognitive disturbances are potentially treatable, and there is an emerging body of evidence-based pharmacological interventions to assist clinicians in devising treatment and management plans together with their patients.

Psychiatric phenomena in Parkinson's disease are highly prevalent and their correct identification and diagnosis are essential. Most of these conditions are potentially treatable or manageable, treatment will improve quality of life for patients and their carers, avoid complications, and delay institutionalisation.