key points

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Dr Peter Saul
GP Wrexham, Associate GP Dean, N. Wales, UK

Parkinson's disease is the second most common neurodegenerative disease with an estimated 137,000 people living with the condition in the UK in 2015. The prevalence increases with age and is approximately 1.5 times higher in men compared with age-matched women. Disease progression is linked to ongoing deposition of Lewy body pathology and cell loss in the substantia nigra and brainstem. Parkinsonism is defined as bradykinesia, in combination with at least one of rest tremor or rigidity.

Patients with Parkinson's disease may present with motor or non-motor symptoms. The prodromal features of Parkinson's disease are often non-motor and can occur decades before the onset of motor symptoms. The majority of these non-motor symptoms are non-specific, such as depression, constipation and anosmia. However, more specific features such as REM sleep behaviour disorder, characterised by physically acting out vivid and often unpleasant dreams, should raise concern regarding the possibility of underlying Parkinson's disease.

The motor signs of Parkinson's disease typically start after the age of 50 years and are related to the core clinical features of parkinsonism: tremor, bradykinesia, rigidity and postural instability. The tremor of Parkinson's disease is typically asymmetrical, seen at rest, low frequency (4-6 Hz) and classically described as pill rolling.

Parkinson's disease is a clinical diagnosis. The history should establish the onset, pattern (symmetry, axial vs limb predominant) and progression of symptoms. It should include a family history of dementia and/or parkinsonism, a past medical history of vascular risk factors and a current or previous drug history of antidopaminergic medications.

Examination should include gait and posture, decreased blink rate and a lack of spontaneous facial movements. Speech will be hypophonic. Evidence of a resting tremor should be sought and the patient assessed for joint rigidity and bradykinesia. After initial assessment, prompt referral to a neurologist is important to confirm the diagnosis and discuss management. Early involvement of the MDT is key.

Non-motor complications occur secondary to levodopa therapy (postural hypotension) or due to progression of the disease itself and manifest as autonomic dysfunction (urinary urgency/incontinence), pain and cognitive impairment/psychosis. Motor complications include motor fluctuations (e.g. 'on-off' times) and dyskinesias. Oral levodopa is the mainstay of treatment. Non-motor symptoms are a significant source of morbidity, and the early identification and treatment of these symptoms is important. As Parkinson's disease progresses, the identification and management of late-stage features must be considered including cognitive impairment and falls. Although clinical trials are ongoing, there are no proven disease-modifying therapies.