**key points**

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It is estimated that up to 80% of patients with Parkinson’s disease will eventually develop cognitive impairment over the course of their illness. Even at the time of diagnosis, cognitive impairment has been reported in 20–25% of patients. Commonly affected cognitive domains are executive function, visuospatial ability and attention control. In addition, patients with Parkinson’s disease dementia may present with deficits in language function and verbal memory.

Psycosis may occur in approximately 40% of patients with Parkinson’s disease, and is associated with an increased risk of developing cognitive impairment. In the early stages of Parkinson’s disease, psychosis is most commonly characterised by visual hallucinations, such as ‘presence’ hallucinations (a feeling that someone is present) and ‘passage’ hallucinations (where a person, animal, or object is seen briefly passing in the peripheral visual field). As the disease progresses, visual hallucinations of animals or people can also occur.

**Studies have shown that patients with Parkinson’s disease with a history of visual hallucinations had an increased risk of developing dementia, four to eight years following diagnosis of the disease. Other clinical risk factors associated with cognitive decline in patients with Parkinson’s disease include older age of onset, severe motor symptom burden and in particular akinetic-rigid subtype and olfactory dysfunction.**

Patients with Parkinson’s disease who present with symptoms of cognitive decline, behavioural changes or psychotic symptoms should be referred for further investigation. Parkinson’s disease patients with suspected cognitive impairment should be referred to specialist movement disorders clinics. The differential diagnosis in such cases is broad and includes Parkinson’s disease mild cognitive impairment, Parkinson’s disease dementia, Lewy body dementia, delirium, other dementias, other psychiatric and medical conditions, substance misuse and side effects of medication.

There are no pharmacological disease modifying therapies able to prevent or delay deterioration of cognitive impairment in Parkinson’s disease, although some medications may ameliorate cognitive and behavioural symptoms. To date, randomised placebo-controlled trials support the use of cholinesterase inhibitors in the treatment of cognitive decline and psychosis in patients with Parkinson’s disease. However, the response to treatment is variable and side effects such as worsening of tremor, nausea and vomiting may impair patient compliance. NICE recommends the use of psychological interventions for patients with Parkinson’s disease dementia. These include cognitive behaviour therapy (CBT), animal-assisted therapy, reminiscence therapy, multisensory stimulation and exercise. CBT can also alleviate impulse control disorders in Parkinson’s disease.

focuses on educating the patient and family about symptoms, treatment options, prognosis and identifying support resources with advance care planning discussions.

In the middle stages as the disease progresses, the patient gradually loses various modalities of function, requiring varying levels of assistance. At this stage palliative care providers may begin to work more closely with care givers, to develop coping strategies for the shifting roles that may occur in the family unit.

In the late stages of the disease, dementia, debility, dysphagia, and difficulties with communication become more prominent. Furthermore, at this stage the psychosocial aspects of the disease can be severe. A multidisciplinary approach may be required to facilitate home care services including home safety evaluations to improve independence. Evidence has shown that patients who are more prepared for a diagnosis of dementia seem to be better adjusted to receiving one. The GP should arrange a referral to specialist services and discuss what will happen to the patient during the assessment process and how long this might take. The GP can also provide support with managing any other conditions the patient may have (e.g., diabetes, hypertension, depression and anxiety).

Managing depression in patients with Parkinson’s disease should involve exclusion of other medical problems that can cause depressive symptoms, such as hypothyroidism. SSRIs and CBT are considered first-line treatments, while tricyclic antidepressant drugs are poorly tolerated because of their anticholinergic effect.

Moreover, GPs can offer general advice on ways of preventing illness and promoting fitness including nutritional advice and counselling. GPs can also make the patient and their carer aware of planning for the future and lifestyle changes that will have to be made, including possible driving restrictions, see Useful information box, p15.

**REFERENCES**

12. Friedman JH. Parkinson’s disease psychosis 2010; a review article. Parkinsonism Relat Disord 2010;16(suppl):553-60
23. Baggio L, Kikuchi K, Hiyama K et al. Severe olfactory dysfunction is a prodromal symptom of dementia associated with Parkinson’s disease: a 3 year longitudinal study. Brain 2012;135:563-75
31. Howlett DR, Whitefield D, Johnson M et al. Regional pathology scores are associated with cognitive decline in Lewy body dementia. Brain Pathol 2015;25;409-08
33. Bruck A, Portin R, Lindell A et al. Postmortem emission tomography shows that impaired frontal lobe functioning....