

key points

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Dementia with cortical Lewy bodies (DLB) is associated with deficits of acetylcholine and dopamine. These neurotransmitters have been found to be deficient in Alzheimer's and Parkinson's disease, respectively. Dementia more than one year after the onset of motor features associated with Parkinson's disease is defined as Parkinson's disease with dementia (PDD). If it develops within one year of the motor features, the term dementia with Lewy bodies (DLB) is used. Since clinical and pathological features are similar, it is generally accepted that both represent a continuum of the same disorder.

PDD together with DLB account for around one fifth of all cases of dementia in the elderly reaching autopsy, thus making it the second most common degenerative dementia in older people, after Alzheimer's disease. Longitudinal studies suggest that most patients with Parkinson's disease would eventually develop dementia if they were to survive for long enough.

The diagnosis of PDD in the presence of long-standing pronounced motor features rarely poses a diagnostic dilemma but the diagnosis of DLB may be more difficult. Patients with DLB typically have rather non-specific problems with frontal and executive function, often fluctuating during the course of the week or even during the day. During early stages of the disease, there can be very little change in the MMSE. Diagnosis of DLB relies on the revised consensus clinical criteria which require the presence of at least two of the following three syndromes: persistent visual hallucinations, fluctuating defects in cognitive and functional ability, and parkinsonism.

Visual hallucinations are present in approximately two thirds of patients with DLB and, at presentation, are the most specific factor in differentiating it from Alzheimer's disease. Visual hallucinations have been associated with a higher risk of developing dementia in patients with Parkinson's disease. No investigation can reliably differentiate PDD and DLB from Alzheimer's disease.

Clinicians dealing with patients with DLB or PDD are faced with a mixture of cognitive, psychiatric and motor symptoms. The involvement of a multidisciplinary team is key. An early referral to a specialist clinic may not only help to confirm the diagnosis, but also to co-ordinate the group of professionals working with the patient. Well lit rooms and the use of glasses and hearing aids, where required, can help to reduce the number of hallucinations.

Cholinesterase inhibitors used in Alzheimer's disease have a role in DLB and PDD. Trials show moderate improvements in cognitive function in patients treated with rivastigmine. The greatest impact, however, seems to be on the psychotic features of the disease. Patients with DLB are less likely to have a good motor response from L-dopa than patients with Parkinson's disease or PDD.