EDITORIAL

Depression, cognition and quality of life in parkinsonian patients

Much of the new knowledge of Parkinson’s disease has been generated by basic research into its physiology and biochemistry [1, 2]. Genetics and the mechanisms of neuronal cell death are giving new insights into the aetiology of the disease and possible interventions [3]. Developments of new therapies in Parkinson’s disease continue to excite interest and generate publications [4]. It is, however, the problems of advanced Parkinson’s disease that most geriatricians find challenging.

Problems of disordered thought and memory, mood and social function occur in many elderly parkinsonian patients [5, 6]. MacMahon and Thomas have created a useful paradigm for disease management in Parkinson’s disease [7]. Their clinical pathway has the merit of being simple, describing a spectrum of care in four phases—diagnostic, maintenance, complex management and palliative care. Anxiety, depression and carer stress, confusion and hallucinations are all seen as markers of the need for complex management, with the aim of optimizing symptom-control and minimizing disability. The support of relatives is seen as important at this stage as well as in the palliative stage.

Community studies

The best overall picture of the epidemiology of Parkinson’s in the UK is Mutch and colleagues’ study in a Scottish city in 1986 [8]. Mutch has critically reviewed other epidemiological studies [9]. Meara and colleagues, in the January issue of Age and Ageing show awareness of the pitfalls of community-based studies. They are to be congratulated on two rigorous studies which throw new light on the ascertainment and frequency of depression and cognitive impairment in elderly parkinsonian patients [10, 11]. They have established a community-based disease register for parkinsonism, based on the computerized prescribing records of all general practitioners within a defined geographical area of North Wales. The patients were then visited at home where a full history was taken and a neurological examination performed. This allowed a group of patients to be identified as having clinically probable Parkinson’s disease, based on the brain bank criteria [12]. Using post mortem studies, Hughes and Lees showed that such criteria resulted in a 75–85% probability of Lewy body pathology associated with Parkinson’s disease [13]. The studies used this population as a sampling frame to study mood, cognitive function and quality of life.

In their latest publication in Age and Ageing, based on the total population recognized on the disease register of 402 cases, Meara and colleagues report that in about one-quarter of the cases parkinsonism could not be confirmed and that 53% of the sample had clinically probable Parkinson’s disease [14]. The importance of excluding common missed diagnoses such as essential tremor, Alzheimer’s disease and vascular pseudo-parkinsonism is emphasized. At least one-quarter of the subjects on anti-parkinsonism medication could not have derived benefit from these drugs and only half obtained benefit from therapy. This validates the emphasis in recent guidelines on the need for early specialist referral for accurate diagnosis [15].

Depression in Parkinson’s disease

Depression in Parkinson’s disease is complex [5]. Meara et al. use a shortened version of the self-administered Geriatric Depression Scale (the GDS-15), which has been validated [16]. Using a random sample of 132 subjects from their clinically probable Parkinson’s disease group (excluding patients with severe dementia), they found that 64% of these subjects had marked depressive symptoms. They also found that one-third of carers scored within the depressive range. However, less than 10% of subjects were on antidepressant drugs. Although depressive symptoms are common, major affective disorder is rare. Depressive symptoms are related to both disease severity and disease duration, accepting that these variables interact to a high degree. This study has clear clinical messages. We are underestimating depression in parkinsonian patients and their carers. Even when depression is recognized, there is a reluctance to start antidepressant therapy. This study identifies a gap in our knowledge which might explain our reticence to treat. Our knowledge of the best treatments of depression in Parkinson’s disease is inadequate and more studies are needed.

Cognitive impairment

Dementia is commoner in older patients with Parkinson’s disease, but the prevalence of cognitive impairment is uncertain, with figures from 4% to as
high as 93% of parkinsonian patients exhibiting cognitive impairment [5, 6]. The North Wales study uses 126 patients ascertained to have probable Parkinson’s disease. The main instruments used are the CAMCOG (the cognitive section of the Cambridge Examination of mental disorders) and the Mini Mental State Examination. These instruments were compared with the criteria for dementia of the American Psychological Association’s Diagnostic and Statistical Manual of Mental Disorders (fourth version). They found that 44% of the group met the criteria for dementia. This suggests that the prevalence of dementia and cognitive problems in elderly people with Parkinson’s disease is underestimated.

Hindle and colleagues have examined aspects of cognitive impairment and perceptual changes in Parkinson’s disease. They have demonstrated links between cognition and movement, showing that loss of adaptation of complex hand movements (such as grasp) is related to cognitive processing in the basal ganglia [17].

Disease processes which erode our ability to think, memorize and maintain mood undoubtedly reduce the quality of life in patients and carers. In 83 caregivers to people with Parkinson’s disease, we have carried out semi-structured interviews and demonstrated that 80% of carers found caring stressful. Whereas motor symptoms correlated with time spent caring, personality changes, depression and hallucinations particularly gave rise to stress [18].

Current research is switching from purely neurological concerns to broader issues. I believe that the studies recently published in *Age and Ageing* will lay the foundations for future explorations and knowledge.

**References**