COGNITIVE DECLINE IN PARKINSON'S DISEASE: A 5-YEAR FOLLOW-UP STUDY

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Introduction: Cognitive functioning in incident Parkinson's disease (PD) has mostly been studied in population based samples using a limited array of tests. Studies that used a sufficiently broad test battery to depict the profile of cognitive strengths and weaknesses have been conducted in clinical samples of prevalent cases, which may be subject to selection bias. Therefore, the extent to which cognition is affected by PD and the profile of cognitive decline remain uncertain.

Aims: To examine the profile and extent of cognitive decline in newly diagnosed PD patients who were followed over 5 years using a wide range of tests.

Methods: At baseline, and after 3 and 5 years, PD patients (n=63) and healthy controls (n=41) were given neuropsychological tests covering six cognitive domains. Motor symptoms were scored with the UPDRS.

Results: PD patients show more rapid cognitive decline than controls, with the largest decline in psychomotor speed and executive functioning, but also in visual-spatial skills and memory. Multivariate normative comparisons identified 67% PD patients as cognitively impaired. These patients had more axial motor symptoms and more motor symptoms that were (partially) unresponsive to treatment. MMSE data from patients lost to follow-up suggest that the percentage of PD patients with cognitive impairments is even greater.

Conclusion: Five years after diagnosis more than two-thirds of PD patients are cognitively impaired. The impairments are most notable in psychomotor speed and executive functioning, and to a lesser extent in areas of visual-spatial skills and memory.