

Review

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Phenomenology and management of cognitive and behavioral disorders in Parkinson's disease. Rise and logic of dementia in Parkinson's disease

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Abstract

An overview of studies on the issue of dementia in Parkinson's disease shows that, over time, there has been an evolution in the perception of the magnitude of the problem and of its nature. Dementia seems today to be part of the disease. This change in the understanding of the disease can be accounted for by various methodological problems and by difficulties, on one hand, in the definition of dementia and its differentiation from other conditions, and, on the other hand, in the diagnosis of the disease itself in individual cases. Optimal therapeutic strategies are also examined, either based on cholinesterase inhibitors or antiparkinsonian drugs and symptomatic measures.

Background: the evolution of numbers

Speaking today about cognitive and behavioral disorders in Parkinson's disease (PD) means more and more speaking about dementia. This was not the case in the beginning, when James Parkinson, in his *"Essay on the shaking palsy"* of 1817 [1], gave his well-known definition of the disease and excluded cognitive impairment: "Involuntary tremulous motion, with lessened muscular power, in parts not in action and even when supported; with a propensity to bend the trunk forward, and to pass from a walking to a running pace: *the senses and intellects being uninjured*". But, James Parkinson described just 6 patients, one of them seen from a distance; he did not have the benefit of statistics! Other early writers also denied the existence of cognitive decline. Charcot, Vulpian, Gowers thought that the intellect remained unaffected till the late stages of the disease, though Erb recognised that there were some exceptions in this rule [2].

And neither was this the case just 20 years ago, when Brown and Marsden, in 1984, in their review of the research over the 60 years prior to 1984, found a number they judged inflated (35.1%, 1 in 3 patients with PD will be demented) [3]. They adjusted these figures to a more conservative estimate of one in five patients. They proposed an estimate of the rate of dementia in PD at the range of 15% to 20%, a risk some 10% to 15% higher than the expected risk of dementia in the general population. It is true that dementia is difficult to define, identify, and understand in terms of our knowledge of the functioning of the nervous system [4]. The study of dementia in Parkinson's disease reflects this difficulty. A striking feature of the literature is the increase in the number of papers on this subject in the last 20 years (and, also, the rise of the numbers themselves in the papers).

Four years later, in a similar review of 27 studies (4,336 patients), Cummings (1988) found an average prevalence of dementia of 39.9% [5]. He noticed that studies report-