RIVASTIGMINE TREATMENT IN PARKINSON'S DISEASE DEMENTIA: SHORT-TERM CHOLINERGIC EFFECTS ARE CORRELATED WITH SIX-MONTH TREATMENT RESPONSE

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Introduction: Rivastigmine has been approved for the treatment of Parkinson's Disease Dementia (PDD). Its clinical effectiveness is brought about by amelioration of the cholinergic deficit in PDD.

Aims: To assess short-term cholinergic effects of rivastigmine in patients with PDD and the relationship of these effects to the six-month treatment response.

Methods: In this prospective, multi-centre, non-interventional trial, neuropsychological assessments of attention, verbal short-term memory and a quantitative EEG recording were performed in PDD patients before and two weeks after treatment initiation. The Mini Mental State Examination (MMSE) was performed before and after six months of rivastigmine treatment.

Results: Thirty-two patients were enrolled, 20 men (63%) and 12 women (37%) at ages between 60 and 86 (mean 75.3) years. After two weeks, the number of correct responses in the attention task as well as the number of correct items in the delayed recall of a word list increased in the majority of patients; mean EEG theta activity was decreased. After six months, mean MMSE (SD) had improved from 23.9 (2.4) to 26.0 (2.8). There were positive correlations between MMSE improvement and some of the short-term treatment effects. Fluctuations of vigilance before treatment initiation were predictive of a better treatment response.

Conclusion: Rivastigmine is the only approved ChE-I in the treatment of PDD. Treatment response in individual patients may be predictable by short-term improvements in attention and verbal short-term memory as well as a decrease in mean EEG theta activity.