Memantine (Namenda®) for non-motor features of Parkinson’s disease: A double blind placebo controlled trial

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INTRODUCTION

Memantine is currently approved for the treatment of moderate to severe Alzheimer’s disease, but has long been used to treat fatigue, apathy, depression, and other related conditions in several disease states. 1-6 The drug has been used safely in PD and reported to improve cardinal motor features and cognition, although not dyskinesia. 7-10 It may also be useful in PD-related anxiety (1), weight loss (1), jerking (1). 8

METHODS

We conducted a single center, double-blind placebo controlled trial of memantine in 40 PD patients. Patients were enrolled over 11 months from the Parkinson Disease Center and Movement Disorders Clinic at Baylor College of Medicine. PD was diagnosed using standard criteria. Specifically inclusion criteria were intentioned broadly and included both fluctuating and non-fluctuating patients with a UPDRS “motivation” (94) score of greater or equal to 2. Patients with dementia or on amantadine were excluded. Baseline assessments, patients (N=40) were randomized to drug and placebo groups. They received a battery of neuropsychiatric assessments. After a safety call (2 weeks after baseline) they returned for identical assessments at week 8. An 8-week open label extension was started if desired. Results: Patient demographics (age 69.1±7.8; 24 males), were similar in the drug and placebo groups. 4 of 36 patients withdrew consent. Of the original 40, 24 continued on drug after completion of the study. Randomization resulted in no demographic differences between groups. [Table 1] Moderate/marked improvement was reported by 1/20 on placebo and 4/16 on drug.

DISCUSSION

Memantine was generally well tolerated in patients with PD and more than half of those who started the drug elected to continue it after the study. There was a trend to improve “on” motor scores, which would have been significant but for one outlier who worsened by 10 points. However, we were not able to demonstrate superiority over placebo on a set of standardized assessments commonly used to evaluate non-motor features in PD including fatigue, attention, sleep, and depression. There are several possible explanations. First, this was a pilot study not powered to detect moderate change in scales. Second, the scales may not be appropriate or sensitive enough to the beneficial effects of this medication in this population. Anecdotally, patients often report “feeling better” without more specific explanations. Nevertheless, this study does not support initiating larger studies, with these endpoints.

REFERENCES