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Levodopa-carbidopa intestinal gel infusion associated complications: a retrospective study

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Introduction: Intra-duodenal infusion of levodopa-carbidopa intestinal gel (LCIG) is used in advanced Parkinson's disease (DS) to reduce motor fluctuations when oral therapy is no longer effective or tolerated. Although generally safe [1-2], LCIG may be associated with complications.

Objectives: This study aimed to investigate the clinical characteristics of PD patients treated with LCIG and the most common complications encountered in the follow-up.

Methods: We reviewed the medical files of PD patients treated with LCIG at the Clinical Neurological Unit of L'Aquila in the last five years. Adverse events (AE) were divided into 2 categories: percutaneous endoscopic gastrostomy (PEG)-related events (owing to the procedure environment) and LCIG-related events (owing to the effects of the medical treatment).

Results: 40 patients (57% male; mean age at LCIG start: 67.7 years-range 51-86) received LCIG infusion. The mean disease duration at LCIG start was 12.3 years. Rigidity and bradykinesia were the main symptoms in most of the patients (n=35; 87%) while tremor-dominant PD was recognized in the remainder (n=5; 13%). LCIG infusion was performed during daytime and stopped at bedtime: the mean morning dose was 7.9±2.2 ml, the mean continuous maintenance dose 3.1±0.9 ml/h and the mean extra dose 1.9±0.7 ml. During follow-up nine patients died (22%) while three patients discontinued the treatment (7.5%). Death was caused by aging-associated biological decline, except for one patient showing procedure-related bowel perforation. Treatment discontinuation was due to accidental removal of the J-tube (n=2; 5%) or poor compliance (n=3; 7.5%). PEG-related AE included peristomal (n=3; 7.5%) and tube complications (n=16; 40%): the most severe complications were postoperative pneumo-peritoneum (n=1; 2%), buried bumped syndrome (n=1; 2%) and bezoar formation (n=5; 12.5%). The most frequent LCIG-related event was weight loss (n=3; 7.5%).

Conclusions: Patients receiving LCIG should be carefully selected and monitored during the whole follow-period, to promptly face LCIG related complications.

References:

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