

Levodopa/carbidopa intestinal gel for managing pain related to levodopa-induced dystonia in advanced Parkinson's disease

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Introduction: Pain is a frequent and disabling nonmotor symptom of Parkinson's disease (PD). In advanced PD, pain frequently occurs or worsens during "off" state and responds to antiparkinsonian therapy. Other patients experience pain exacerbation during dyskinesia/dystonia in "on" state. Levodopa/carbidopa intestinal gel (LCIG) may help optimizing the risk/benefit ratio of treatment and ameliorate quality of life.

Objective: We report the case of a PD patient presenting with disabling levodopa induced right-limb dystonia, who experienced significant reduction of pain and disability and improvement of autonomy with LCIG.

Methods: A 77-year-old female, with 13 years of PD history, presented with peak-dose dystonia (VAS score 8), severe "off" state at the end of each levodopa dose, and overnight muscle cramps. To limit dystonia and pain, she was treated with levodopa/benserazide 50/12.5 mg six daily doses (3 h interval) and opicapone 50 mg/day (LEDD=450 mg). At admission, her MDS-UPDRS-III score in "off" was 77, H&Y score 5, PDSS-2 score 37. After PEG-J placement, she was discharged under 24-h LCIG treatment with infusion rate 1.4 ml/h (28 mg/h), with reduction of pain severity (VAS score 4). Based on lack of dystonia, infusion rate was progressively increased to 2.0 ml/h (40 mg/h) (LEDD 960 mg). At follow-up visit after 2 months with such dosage, the patient was able to walk with assistance for short tracks (H&Y 4), her VAS score lowered to 3, her PDSS- 2 score lowered to 16. She reported moderate limb dystonia, lasting 20-30 min, occurring after tube cleansing (approximately once every 2 days), and mild "off" symptoms lasting 1 h in the afternoon and 2-3 h along night-time.

Results and Conclusions: Severe peak-dose dystonia may benefit from switching to LCIG. This case strengthens the need for optimizing DRT in advanced PD patients with the aim reducing disability and ameliorating quality of life and autonomy.