

1.0 Abstract

Title

Global REsponse during iNFusion of a gEl with LevoDopa/carbidopa (GREENFIELD)

Keywords

Advanced Parkinson's disease, Duodopa, levodopa/carbidopa intestinal gel (LCIG), PEG-J.

Rationale and Background

The rationale for this post-marketing observational study (PMOS) was to evaluate the long-term benefit of Duodopa (up to 7 years) especially focusing on motor fluctuations and disability.

Research Question and Objectives

The primary objective of this study was to document the long-term clinical effectiveness of DUODOPA on motor fluctuations (duration of OFF periods) in patients with advanced levodopa-responsive PD and severe motor fluctuations and hyper-/dyskinesia who were treated in accordance with local DUODOPA® product label under the conditions of a routine clinical setting.

Secondary objectives of this study were:

- to assess the patient's quality of life
- to assess the long-term safety of DUODOPA
- to assess disability, cognitive function, and their non-professional caregiver burden in patients who have the assessment of these endpoints at baseline
- to evaluate if the long-term effectiveness (UPDRS) could differ on the basis of the age of patients and of the duration of the disease
- to assess the economic and social impact on the family caregiver assistance

Study Design

This PMOS was performed with a multi-center approach.

The study design included 3 visits: the enrollment visit (Visit 1) and 2 follow up visits after 1 and 2 years (Visit 2/3) from the beginning of Duodopa treatment.

Setting

The study was performed in Italy, in 14 sites.

Subjects and Study Size, Including Dropouts

148 patients with advanced PD were enrolled in 14 sites. Three patients did not fulfill all selection criteria and were excluded from the full analysis set (FAS). There were 145 patients in the FAS: 81 prospective (treated with Duodopa for less than 1 year at enrollment visit) and 64 retrospective patients (treated with Duodopa for more than 1 year at enrollment visit). 115 patients completed the study. Patients dropped out from the study for: withdrawal of consent (1), protocol violation (3), Duodopa discontinuation (9), death (13) and loss to follow-up (7).

Variables and Data Sources

Effectiveness was assessed with: UPDRS I, II, IV, PDSS-2, GFQ, QUIP-RS; quality of life with: PDQ-39, RSS; Economic and social impact of the family caregiver assistance with specific questions.

Results

The primary endpoint (UPDRS IV, item 39 – proportion of waking day spent in "OFF") evaluation at the last available follow-up (Visit 2 or Visit 3 or at the last available visit) showed a statistically significant decrease compared to baseline.

In addition, the scores for all the items related to dyskinesia (duration, severity, painful dyskinesia) and dystonia were significantly reduced at each visit compared to baseline.

The other (secondary) analyses on disability scales, and caregiver burden as well as patient's quality of life evaluation confirmed in general (even if not for all scale scores) the results of the primary analysis.

Secondary efficacy analyses to assess if the long-term effectiveness differed on the basis of the age of patients and of the duration of the disease: patients with shorter disease duration had better quality of life and better control of motor complications while the same trend was not confirmed for age.

The results obtained for prospective or retrospective patients in general confirmed the overall analysis, without highlighting particular differences for one of the two subgroups. Overall the long-term safety profile of Duodopa can be considered in line with the established safety profile.

Discussion

Primary analysis results confirmed Duodopa to be effective with respect to proportion of waking day spent in "OFF" reduction.

Evaluation of results on disability, cognitive function, and non-professional caregiver burden as well as patient's quality of life evaluation confirmed in general the positive results obtained in the primary analysis, even if some inhomogeneity was observed through the different assessments.

From the descriptive statistics on judgment on Duodopa therapy, a good level of satisfaction was observed from patient self-assessment and also global efficacy on motor symptoms rated by neurologists showed a positive outcome.

