PARKINSON DISEASE

Intrajejunal duodopa improves nonmotor symptoms

Previous studies have shown that, compared with oral levodopa medication, continuous infusion of levodopa-carbidopa (duodopa) gel reduces motor complications in advanced Parkinson disease (PD). A study by Honig and colleagues has, for the first time, explored the effects of infusion of intrajejunal duodopa on nonmotor symptoms in advanced PD cases.

“Nonmotor symptoms are a key aspect of PD and a major determinant of quality of life and are often under-recognized and under-treated,” describes lead investigator K. Ray Chaudhuri, of Kings College Hospital, London, UK. Chaudhuri explains that his team “led the international development and validation of the first ever nonmotor questionnaire, which empowers the patient to declare the nonmotor symptoms, and the nonmotor scale, which allows the clinician to quantify these problems.”

The investigators monitored 22 patients (mean age 58.6 years) with advanced PD

who received intrajejunal duodopa for 6 months. Assessments were made using the nonmotor symptoms scale, the Unified Parkinson's Disease Rating Scale (UPDRS) domain 3 (motor) and 4 (complications), and Parkinson's Disease Questionnaire (PDQ-8) for quality of life.

“The dramatic finding was the overall improvement in nonmotor symptoms including sleep, mood, dribbling of saliva and urinary function,” Chaudhuri comments. The nonmotor symptoms scale also revealed that intrajejunal duodopa conferred a sizeable beneficial effect on cardiovascular, attention and memory, gastrointestinal, and pain symptoms, mirroring the notable improvements in motor state observed on the UPDRS. Furthermore, improvements in quality of life were strongly correlated with the changes in the total nonmotor symptoms scale.

These data provided by the nonmotor symptoms scale suggest that therapies such as intrajejunal duodopa gel infusion can be considered to treat some nonmotor

Figure 1 | Duodopa® intestinal infusion system (Solvay Pharma AB, Västra Frölunda, Sweden). **a** | Duodopa® container. **b** | Pump. **c** | Connection. **d** | Gastric port. **e** | Intestinal tubing. Image provided by Prof. K. Ray Chaudhuri.

symptoms as well as motor symptoms in patients with PD, the researchers conclude.

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