Parkinson’s disease

GASTROPARESIS SYMPTOMS IN EARLY PARKINSON’S DISEASE

S. Marrinan1, N. Bajaj2, R. Barker2, Y. Ben-Shlomo4, A. Emmanuel5, T. Foltynie5, D. Grosset6, H. Morris7, N. Williams7, N. Wood2, D. Burn1
On behalf of the PRoBaND clinical consortium1

1Newcastle University
2Queen’s Medical Centre, Nottingham
3University of Cambridge
4University of Bristol
5University College London
6Institute of Neurosciences, Glasgow
7MRC Centre for Neuropsychiatric Genetics and Genomics, Cardiff University

Introduction: Gastroparesis is a chronic episodic disorder of delayed gastric emptying. Measurement of gastric emptying rates in PD suggests that 70-100% of patients may have abnormally delayed gastric emptying, which may contribute to the variable response to oral Levodopa seen in some patients.

The relationship between gastric emptying rate and gastroparesis symptoms in PD is unclear. This study aims to define the prevalence and clinical features associated with gastroparesis symptoms in people with early PD.

Methods: This is an interim report from a subset of patients recruited to the on-going Parkinson’s Repository of Biosamples and Networked Datasets (PRoBaND) cohort study. Patients diagnosed with PD within the preceding three years completed a validated questionnaire regarding symptoms of gastroparesis (gastroparesis cardinal symptom index: GCSI).

Results: Out of 672 patients, 64% were male, mean age 67.2 years (± 9.2 standard deviations [SD]), mean age at diagnosis 65.7 years (± 9.1 SD), median disease duration 1.4 years (interquartile range 1.67), mean UPDRS part 3 score 21.4 (± 11.7 SD).

The median GCSI total score was 0.17 (interquartile range 0.64). 3.9% of patients had a high GCSI total score (≥ 1.90) consistent with a diagnosis of gastroparesis. Higher GCSI scores were significantly associated with female gender (P < 0.001), higher UPDRS part 3 score (P < 0.05) and constipation (< 1 bowel motion daily) (P = 0.01).

Conclusions: Although measured gastric emptying delay is common in PD, only 3.9% of patients with early PD report significant gastroparesis symptoms. This suggests that delayed gastric emptying may be largely asymptomatic, as has also been suggested in diabetic populations. The association of more severe gastroparesis symptoms with worse motor features and constipation is novel and will be further explored in the full PRoBaND cohort.