Introduction Parkinson’s disease (PD) is a neuro-degenerative disorder with frequent involvement of the gut. Symptoms arise throughout the gastrointestinal tract through dysmotility secondary to autonomic and enteric nervous system involvement, as well from skeletal muscle involvement in the oropharynx and anorectum. It has been speculated that gut involvement may precede motor symptoms. The Wireless Motility Capsule (WMC) yields data on transit and motility throughout the gut. We report the first use of WMC to systematically assess motility in PD patients with and without gut symptoms, compared to controls.

Methods 15 patients with established PD completed the study: eight (2 f, mean age 70 [47–85]) had GI symptoms and seven (2 f, mean age 61 [49–77]) did not based on history and baseline scores on the Gastroesophageal Acid Reflux (GEER), small bowel transit time (SBTT), colonic transit time (CTT) and whole gut transit time (WGTT) were calculated.

Results PD patients with gut symptoms showed significantly slower transit in the stomach (GET 5.2 vs. 2.7 h, p = 0.0003), colon (CTT 57.8 vs. 27.4 h, p = 0.02) and overall gut (WGTT 67.2 vs. 34.7 h, p = 0.02) compared to asymptomatic patients. Small bowel transit (mean SBTT 4.17 h) did not significantly differ. GET, SBTT, CTT and WGTT did not differ between asymptomatic PD and controls. There was a significant correlation between the Wexner constipation score and CTT in all patients (p < 0.01), but no correlation between GCIS and gastric emptying (p > 0.05).

Conclusion This study demonstrates that symptomatic PD patients have markedly delayed transit times throughout the whole gut compared to asymptomatic PD patients and controls. The correlation between scores and transit times suggest that WMC is a less useful indicator of gastric emptying than small bowel and colonic transit.

Disclosure of Interest None Declared.