

Supplementary Material

Gastric Motility in Parkinson's Disease Is Altered Depending on the Digestive Phase and Does Not Correlate with Patient-Reported Motor Fluctuations

Supplementary Table 1a shows MRI parameters for PD patients and controls for each of the three MRIs.

	PD patients (n=16)	Controls (n=20)	
	median [range]	median [range]	p
Time between test meal and 2 nd MRI in minutes	26 [20 - 56]	19.5 [9 - 74]	0.012
Time between test meal and 3 rd MRI in minutes	258 [226 - 309]	277.5 [233 - 317]	0.149
amplitude of peristaltic waves (in mm)			
1 st MRI (fasting state)	4.5 [3 - 12]	6 [3 - 15]	0.262
2 nd MRI (early postprandial)	6.5 [3 - 18]	10.5 [4 - 25]	0.015
3 rd MRI (late postprandial)	5 [2 - 19]	8 [4 - 17]	0.025
velocity of peristaltic waves (in mm/s)			
1 st MRI (fasting state)	1.5 [0.8 - 2.2]	1.7 [0.6 - 3.9]	0.519
2 nd MRI (early postprandial)	2 [1.6 - 3.8]	2 [1.2 - 3]	0.814
3 rd MRI (late postprandial)	1.9 [1.3 - 3]	1.9 [1.1 - 3.3]	0.856
gastric motility index (GMI; in mm²/s)			
1 st MRI (fasting state)	6.5 [3.8 - 17.2]	10.2 [1.9 - 31.4]	0.077
2 nd MRI (early postprandial)	13.3 [6.6 - 38.5]	22.7 [9.2 - 42.7]	0.011
3 rd MRI (late postprandial)	10 [5 - 41.6]	13.9 [4.6 - 35.8]	0.131

Supplementary Table 1b shows MRI parameters for PD patients with and without motor fluctuations for each of the three MRIs.

	PD patients with motor fluctuations (n=8)	PD patients without motor fluctuations (n=8)	
	median [range]	median [range]	p
Time between test meal and 2 nd MRI in minutes	31 [20 - 56]	22.5 [20 - 41]	0.07
Time between test meal and 3 rd MRI in minutes	270.5 [228 - 305]	237 [226 - 309]	0.39
amplitude of peristaltic waves (in mm)			
1 st MRI (fasting state)	4 [3 - 8]	5 [3 - 12]	0.57
2 nd MRI (early postprandial)	6 [4 - 10]	8.5 [3 - 18]	0.57
3 rd MRI (late postprandial)	5 [3 - 9]	6 [2 - 19]	0.61
velocity of peristaltic waves (in mm/s)			
1 st MRI (fasting state)	1.4 [1.0 - 2.2]	1.6 [0.8 - 2.2]	0.96
2 nd MRI (early postprandial)	1.9 [1.6 - 2.3]	2 [1.8 - 3.8]	0.33
3 rd MRI (late postprandial)	1.7 [1.4 - 2.8]	2 [1.3 - 3.0]	0.69
gastric motility index (GMI; in mm²/s)			
1 st MRI (fasting state)	5.2 [4.0 - 17.2]	7.5 [3.8 - 13]	0.51
2 nd MRI (early postprandial)	11.5 [7.2 - 18.9]	16.8 [6.6 - 38.5]	0.13
3 rd MRI (late postprandial)	9.2 [5 - 17.5]	11.4 [6.0 - 41.6]	0.96

Videos showing MRI-captured peristaltic waves in a control subject (video A) and in a PD patient (video B).