

Table e-1. Final clinical assessments and dopaminergic medication usage of Parkinson disease participants

	Number of reports of psychotic symptoms			p-value
	0 (n=285)	1 (n=54)	≥2 (n=84)	
PIGD subtype, no. (%)	55 (19.4) (n=284)	12 (22.2)	28 (33.3)	0.03
Total MDS-UPDRS Part 3 score, mean (SD)	28.3 (11.5) (n=284)	30.7 (15.9)	32.4 (15.9)	0.03
Levodopa usage during study, no. (%)	207 (72.6)	45 (83.3)	72 (85.7)	0.02
Dopamine agonist usage during study, no. (%)	145 (50.9)	32 (59.3)	58 (69.1)	0.01
MoCA score, median (IQR)	27 (25, 29) (n=284)	28 (24, 29)	26.5 (23, 29)	0.05
MoCA <26, no. (%)	78 (27.5) (n=284)	17 (31.5)	32 (38.1)	0.17
HVLT total recall, T-score (SD)	48.0 (11.3) (n=284)	47.9 (12.1)	49.0 (14.9)	0.76
HVLT delayed recall, T-score (SD)	48.9 (12.5) (n=284)	48.3 (12.7)	51.0 (15.2)	0.37
HVLT retention, T-score (SD)	49.8 (12.1) (n=284)	49.8 (13.7)	52.1 (14.3)	0.34
HVLT recognition discrimination index, T-score (SD)	50.8 (11.8) (n=283)	49.1 (11.3)	50.6 (14.3)	0.67
Judgment of Line Orientation, Scaled Score (SD)	12.6 (2.8) (n=284)	12.3 (3.0)	11.9 (3.3)	0.14
Letter Number Sequencing, Scaled Score (SD)	11.4 (3.1) (n=284)	11.0 (2.9)	10.1 (3.8)	0.004
Symbol Digit Modalities, T-score (SD)	45.1 (10.0) (n=284)	45.3 (11.6) (n=53)	41.6 (11.1)	0.02
Semantic Fluency Animals, T-score (SD)	51.6 (9.8)	52.4 (11.2)	50.8 (13.8)	0.68

For variables presented as mean (SD), one-way ANOVA was used. For variables presented as no. (%), chi-squared test was used. For variable presented as median (IQR), Kruskal-Wallis was used. Abbreviations: y=years; GDS = Geriatric Depression Scale; HVLT = Hopkins Verbal learning Test-Revised; IQR=interquartile range; MDS-UPDRS = Movement Disorders Society Unified Parkinson Disease Rating Scale; MoCA = Montreal Cognitive Assessment; PiGD = Postural Instability and Gait Difficulty.

Table e-2. Baseline characteristics of Parkinson disease and healthy controls with MRI

	PD: ≥ 2 psychotic events (n=52)	PD: 0 or 1 psychotic event (n=176)	Healthy Controls (n=101)	p-value
Women, No. (%)	19 (36.5)	68 (38.6)	34 (33.7)	0.71
Age at enrollment, y (SD)	62.7 (8.4)	61.7 (9.8)	59.5 (11.0)	0.09
Duration of disease, y (SD)	0.55 (0.58)	0.57 (0.60)	-	0.80
Total MDS-UPDRS Part 3 score, mean (SD)	21.6 (8.5)	20.4 (8.7)	1.2 (2.2) (n=100)	<0.0001
MoCA score, median (IQR)	27 (25.5, 29)	28 (26, 29)	28 (27, 29)	0.0003 ^a

a. Post-hoc Mann-Whitney U tests found no significant difference in MoCA scores between the 2 PD groups ($p=0.85$). Healthy control MoCA scores were significantly greater than PD with 0 or 1 psychotic event ($p=0.0001$) and PD with ≥ 2 psychotic events ($p=0.003$).