



Supplemental Figure 1 A - B: Regions-of-interest (ROI) templates in brain (Fig. 1 A) and thorax (Fig. 1 B) employed for semiquantitative assessment of striatal dopamine D2-receptors, striatal dopamine transporters and myocardial noradrenergic innervation. Brain ROI templates were designed on a normalized MRI, transferred onto the 3D-adjusted SPECT dataset of a given individual and visually adjusted if necessary. The thoracic ROI template was visually adjusted on the planar scintigraphies.

Fig. 1 A: S = striatum, C caudate nucleus, P = putamen, K = posterior cortical areas;

Fig. 1 B: H = left ventricle myocardium, M = midline mediastinum.

Supplemental Table 1: Patients' clinical characteristics

Patient no/sex/age	Disease	Disease duration, y at study inclusion	UPDRS-III Off/On at study inclusion	Follow up, m	Note
1/F/55	PD	2	6 / +	33	PLTDR
2/M/64	PD	0.5	11 / +	34	PLTDR
3/M/63	PD	2	17 / +	48	PLTDR
4/F/61	PD	1	6 / +	38	PLTDR
5/M/65	PD	0.5	13 / +	39	PLTDR
6/M/72	PD	0.5	11 / +	25	PLTDR
7/F/69	PD	2	14 / +	55	PLTDR
8/M/53	PD	1	14 / 7	40	PLTDR
9/M/61	PD	2	7 / +	49	PLTDR
10/M/58	PD	1	7 / +	44	PLTDR
11/F/44	PD	2	8 / 3	46	PLTDR
12/M/74	PD	2	8 / 4	8	PLTDR, †
13/F/63	PD	10	+	46	PLTDR, MF
14/M/61	PD	2	17 / +	50	PLTDR
15/F/67	PD	1	44 / 30	37	PLTDR
16/F/66	PD	2	18 / +	55	PLTDR, MF
17/M/68	PD	4	44 / 30	15	PLTDR, †
18/M/68	PD	8	54 / 37	21	PLTDR, MF
19/F/68	PD	4	22 / 15	32	PLTDR
20/M/47	PD	4	22 / 14	34	PLTDR, MF
21/M/74	PD	10	34 / 22	26	PLTDR
22/M/41	PD	4	60 / 20	43	PLTDR, DBS
23/F/63	PD	13	58 / 8	39	PLTDR, DBS
24/M/73	PD	19	50 / 20	45	PLTDR, DBS
25/M/67	PD	21	61 / 20	40	PLTDR, DBS
26/M/68	PD	8	53 / 35	41	PLTDR, MF
27/F/71	PD	16	37 / 15	55	PLTDR, DBS
28/M/67	PD	16	33 / 15	41	PLTDR, DBS
29/M/74	PD	16	48 / 32	27	PLTDR, DBS
30/M/67	PD	12	38 / 22	9	PLTDR, DBS, †
31/M/73	PD	21	57 / 31	45	PLTDR, MF
32/M/49	MSA-P	4	47 / 47	26	NLTDR, †
33/M/63	MSA-P	4	54 / 52	27	NLTDR, †
34/M/64	MSA-P	2	17 / 13	12	PLTDR, †
35/M/52	MSA-P	2	19 / 17	21	NLTDR, †
36/M/69	MSA-P	5	51 / 50	10	NLTDR, †
37/M/70	MSA-P	8	43 / 40	15	NLTDR, †
38/M/68	MSA-P	3	9 / 9	45	NLTDR, UI
39/M/57	MSA-P	6	42 / 37	51	PLTDR, †
40/M/58	MSA-P	6	43 / 31	31	PLTDR, UI/FI
41/M/77	MSA-P	7	14 / 13	15	NLTDR, †
42/F/68	MSA-P	4	37 / 37	15	NLTDR, †
43/M/77	PSP	1	21 / 18	17	NLTDR, PI/SO
44/M/64	PSP	11	38 / 37	38	NLTDR, PI/SO
45/M/66	PSP	6	- / -	29	NLTDR, PI/SO
46/M/72	PSP	13	26 / 26	28	NLTDR, †
47/M/78	PSP	10	38 / 38	31	NLTDR, †
48/F/68	PSP	6	21 / 18	31	NLTDR, PI/SO

PD = Parkinson's disease, MSA-P = Multi system atrophy Parkinsonian type, PSP = Progressive supranuclear palsy, F = female, M = male, y = years, m = months, MF = motor fluctuations, DBS = deep brain stimulation, † = died, UI = urinary incontinence, FI = faecal incontinence, PI = postural instability, SO = supranuclear ophthalmoplegia, PLTDR = positive long-term Levodopa response, NLTDR = negative long-term Levodopa response.