



On-line Fig 1: Substantia nigra region of interest placement. Substantia nigra region of interest overlaid on the 3D-T1 (A) and magnetization transfer-map (B). Note the much better visibility of the SN on the magnetization transfer-map.

On-line Table 1: Clinical and demographic details

#	Age	Gender	Diagnosis	Substantia Nigra Ultrasound	Year of First Diagnosis	Duration (years)	L-DoPa Responsiveness	T2*	T2	DTI	MT/T1
1	67	Female	IPS	N/A	2005	3	Present	Yes	Yes	N/A ¹	Yes
2	57	Male	IPS	Clearly hyperechogenic	1998	8	Present	Yes	Yes	Yes	Yes
3	65	Male	IPS	Clearly hyperechogenic	2003	3	Present	Yes	Yes	Yes	Yes
4	65	Male	IPS	Clearly hyperechogenic	2000	7	Present	Yes	Yes	Yes	Yes
5	55	Male	IPS	N/A	2005	3	Present	Yes	Yes	Yes	Yes
6	67	Male	IPS	N/A	2007	1	Present	Yes	Yes	Yes	Yes
7	79	Male	IPS	N/A	1998	10	Present	Yes	Yes	Yes	Yes
8	74	Male	IPS	N/A	2001	7	Present	Yes	Yes	Yes	Yes
9	58	Male	IPS	N/A	2006	2	Present	Yes	Yes	Yes	Yes
10	69	Male	IPS	N/A	1999	7	Present	Yes	Yes	Yes	Yes
11	78	Male	IPS	Clearly hyperechogenic	2004	4	Present	N/A ²	Yes	Yes	Yes
12	62	Female	IPS	N/A	1993	15	Present	Yes	N/A ²	Yes	Yes
13	74	Male	Probable MSA-P	Not hyperechogenic	1998	8	Discrete/transient	N/A ¹	N/A ¹	Yes	Yes
14	60	Female	Probable MSA-P	Not hyperechogenic	2003	3	Discrete/transient	Yes	Yes	Yes	Yes
15	66	Female	Possible MSA-P	N/A	2004	2	None	Yes	Yes	Yes	Yes
16	46	Female	Possible MSA-P	Clearly hyperechogenic	2001	6	Discrete/transient	Yes	Yes	Yes	Yes
17	58	Male	Possible MSA-P	Not hyperechogenic	2003	4	Discrete/transient	Yes	Yes	Yes	Yes
18	67	Male	Probable MSA-P	Mildly hyperechogenic	2005	2	Discrete/transient	Yes	Yes	Yes	Yes
19	68	Female	Possible MSA-P	No window	2003	4	Present	Yes	Yes	Yes	Yes
20	66	Female	Probable MSA-P	No window	1997	10	Present	Yes	Yes	Yes	Yes
21	68	Male	Possible MSA-P	Not hyperechogenic	2004	3	Discrete/transient	Yes	Yes	Yes	Yes
22	52	Male	Possible MSA-P	No window	2004	3	Present	Yes	Yes	Yes	Yes
23	64	Male	Possible PSP	Not hyperechogenic	2006	1	None	Yes	Yes	Yes	Yes
24	69	Male	Possible PSP	Not hyperechogenic	2003	3	None	Yes	Yes	Yes	Yes
25	72	Male	Probable PSP	Mildly hyperechogenic	2004	3	None	Yes	Yes	Yes	Yes
26	70	Male	Possible PSP	N/A	2004	3	Discrete/transient	Yes	Yes	Yes	Yes
27	64	Male	Probable PSP	Not hyperechogenic	2005	2	None	Yes	Yes	Yes	Yes
28	65	Male	Probable PSP	Not hyperechogenic	2007	0	None	Yes	Yes	N/A ³	Yes
29	66	Female	Probable PSP	N/A	1999	8	Discrete/transient	Yes	Yes	Yes	Yes
30	73	Female	Probable PSP	Not hyperechogenic	2006	1	None	Yes	Yes	Yes	Yes
31	60	Male	Probable PSP	Not hyperechogenic	2006	1	Discrete/transient	Yes	Yes	Yes	Yes
32	64	Female	Control					Yes	Yes	Yes	Yes
33	63	Female	Control					Yes	Yes	Yes	Yes
34	81	Female	Control					Yes	Yes	Yes	Yes
35	80	Male	Control					Yes	Yes	Yes	Yes
36	68	Male	Control					Yes	Yes	Yes	Yes
37	68	Male	Control					Yes	Yes	Yes	Yes
38	67	Male	Control					Yes	Yes	Yes	Yes
39	54	Female	Control					Yes	Yes	Yes	Yes
40	70	Female	Control					Yes	N/A ²	Yes	Yes
41	76	Female	Control					Yes	Yes	Yes	Yes
42	77	Male	Control					N/A ²	Yes	Yes	Yes
43	43	Female	Control					N/A ²	Yes	Yes	Yes
44	68	Female	Control					Yes	Yes	Yes	Yes

Demographic and clinical details of enrolled patients/controls and available quantitative paradigms are listed. IPS indicates idiopathic Parkinson syndrome, MSA-P = multiple systems atrophy Parkinson variant, PSP = progressive supranuclear palsy, N/A = not available.

Reasons for N/A scans: ¹movement, ²data not in long-term storage (omitted by radiographer or lost in transfer), ³failure of image reconstruction on the scanner console.

On-line Table 2: Mean and SD of each region of interest, quantitative map and group

		Putamen		Pallidum		Caudate		Substantia Nigra	
		Left	Right	Left	Right	Left	Right	Left	Right
R2	Controls	12.71 ± 1.31	12.70 ± 1.45	13.89 ± 1.07	13.52 ± 1.19	10.99 ± 0.72	10.90 ± 0.95	12.39 ± 1.22	12.11 ± 1.30
(1/s)	IPS	12.34 ± 0.43	12.49 ± 0.43	13.24 ± 1.09	13.07 ± 0.84	11.31 ± 0.52	11.14 ± 0.88	12.11 ± 0.57	12.08 ± 0.30
	MSA-P	12.76 ± 0.52	12.43 ± 1.24	14.30 ± 0.87	14.35 ± 1.01	11.64 ± 0.91	11.63 ± 0.95	12.13 ± 0.95	12.13 ± 1.06
	PSP	12.62 ± 0.80	12.61 ± 0.87	12.78 ± 1.14	12.96 ± 1.17	11.28 ± 0.83	11.59 ± 1.11	11.90 ± 0.92	12.29 ± 0.52
R2*	Controls	28.26 ± 3.95	29.19 ± 4.18	35.75 ± 5.71	36.82 ± 3.75	24.03 ± 3.26	23.31 ± 2.95	30.85 ± 4.90	31.21 ± 5.15
(1/s)	IPS	28.39 ± 2.67	27.69 ± 3.40	35.92 ± 5.80	33.38 ± 4.23	23.11 ± 2.58	23.22 ± 1.98	33.03 ± 4.30	32.42 ± 5.84
	MSA-P	34.74 ± 4.18	35.49 ± 3.46	41.43 ± 6.82	43.12 ± 4.07	25.65 ± 4.08	25.90 ± 4.37	33.82 ± 5.26	35.84 ± 5.38
	PSP	30.39 ± 4.16	31.16 ± 4.35	35.90 ± 4.95	35.45 ± 7.02	23.98 ± 3.25	24.29 ± 4.13	33.15 ± 6.05	33.11 ± 4.75
MT	Controls	1.24 ± 0.08	1.20 ± 0.10	1.53 ± 0.20	1.54 ± 0.14	1.11 ± 0.08	1.10 ± 0.10	1.41 ± 0.14	1.38 ± 0.14
(%)	IPS	1.29 ± 0.11	1.24 ± 0.08	1.58 ± 0.16	1.54 ± 0.11	1.20 ± 0.07	1.16 ± 0.08	1.45 ± 0.18	1.40 ± 0.20
	MSA-P	1.21 ± 0.08	1.13 ± 0.12	1.54 ± 0.11	1.50 ± 0.11	1.15 ± 0.06	1.15 ± 0.08	1.32 ± 0.09	1.31 ± 0.08
	PSP	1.30 ± 0.11	1.25 ± 0.11	1.47 ± 0.16	1.41 ± 0.17	1.20 ± 0.08	1.20 ± 0.13	1.38 ± 0.14	1.29 ± 0.15
MTR	Controls	43.67 ± 1.28	43.73 ± 1.74	46.24 ± 1.95	46.69 ± 1.74	42.93 ± 1.28	42.64 ± 0.98	46.11 ± 1.91	46.17 ± 1.54
(%)	IPS	44.57 ± 0.83	44.64 ± 1.14	47.13 ± 1.41	47.11 ± 1.48	44.12 ± 0.86	43.55 ± 1.04	46.95 ± 2.23	46.41 ± 3.08
	MSA-P	42.78 ± 1.89	42.05 ± 2.18	46.16 ± 1.24	45.53 ± 1.86	43.43 ± 0.91	43.23 ± 1.17	44.38 ± 1.17	44.83 ± 1.51
	PSP	44.07 ± 1.20	43.86 ± 1.43	45.11 ± 2.18	44.38 ± 2.87	43.09 ± 1.15	43.05 ± 1.43	45.68 ± 1.40	44.49 ± 2.42
R1	Controls	0.71 ± 0.04	0.69 ± 0.05	0.87 ± 0.10	0.86 ± 0.06	0.63 ± 0.03	0.63 ± 0.04	0.83 ± 0.04	0.81 ± 0.04
(1/s)	IPS	0.71 ± 0.03	0.71 ± 0.03	0.88 ± 0.06	0.87 ± 0.02	0.66 ± 0.03	0.66 ± 0.07	0.83 ± 0.07	0.82 ± 0.05
	MSA-P	0.74 ± 0.03	0.71 ± 0.04	0.89 ± 0.06	0.90 ± 0.05	0.65 ± 0.03	0.67 ± 0.03	0.86 ± 0.03	0.84 ± 0.02
	PSP	0.73 ± 0.03	0.72 ± 0.04	0.86 ± 0.04	0.86 ± 0.05	0.68 ± 0.05	0.69 ± 0.05	0.82 ± 0.04	0.82 ± 0.08
FA	Controls	0.23 ± 0.02	0.22 ± 0.02	0.24 ± 0.04	0.25 ± 0.03	0.15 ± 0.01	0.15 ± 0.02	0.30 ± 0.02	0.32 ± 0.02
	IPS	0.23 ± 0.01	0.23 ± 0.01	0.24 ± 0.02	0.25 ± 0.02	0.16 ± 0.01	0.17 ± 0.03	0.30 ± 0.02	0.32 ± 0.03
	MSA-P	0.23 ± 0.01	0.23 ± 0.01	0.24 ± 0.02	0.26 ± 0.02	0.17 ± 0.03	0.17 ± 0.02	0.31 ± 0.04	0.31 ± 0.03
	PSP	0.24 ± 0.03	0.23 ± 0.02	0.24 ± 0.04	0.22 ± 0.03	0.16 ± 0.02	0.19 ± 0.02	0.30 ± 0.05	0.34 ± 0.04
MD	Controls	0.77 ± 0.09	0.78 ± 0.10	0.82 ± 0.09	0.80 ± 0.09	1.16 ± 0.10	1.14 ± 0.11	0.80 ± 0.03	0.77 ± 0.03
	IPS	0.77 ± 0.05	0.77 ± 0.05	0.84 ± 0.09	0.80 ± 0.08	1.18 ± 0.10	1.11 ± 0.13	0.84 ± 0.05	0.80 ± 0.05
	MSA-P	0.80 ± 0.04	0.82 ± 0.08	0.84 ± 0.04	0.83 ± 0.06	1.11 ± 0.10	1.11 ± 0.07	0.81 ± 0.05	0.80 ± 0.05
	PSP	0.80 ± 0.06	0.81 ± 0.05	0.94 ± 0.09	0.93 ± 0.07	1.13 ± 0.14	1.13 ± 0.11	0.90 ± 0.09	0.87 ± 0.08

Note:—MT indicates magnetization transfer; MSA-P, multiple systems atrophy-type Parkinson.

On-line Table 3: Post hoc ANOVA

		Putamen		Pallidum		Caudate		Substantia Nigra	
		Left	Right	Left	Right	Left	Right	Left	Right
R2	IPS - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	MSA-P - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	MSA-P - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
R2*	PSP - MSA-P	n.s.	n.s.	0.024	0.050	n.s.	n.s.	n.s.	n.s.
	IPS - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	MSA-P - Cx	0.003	0.005	n.s.	0.039	n.s.	n.s.	n.s.	n.s.
	PSP - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	MSA-P - IPS	0.003	<0.001	n.s.	<0.001	n.s.	n.s.	n.s.	n.s.
MT	PSP - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - MSA-P	n.s.	n.s.	n.s.	0.011	n.s.	n.s.	n.s.	n.s.
	IPS - Cx	n.s.	n.s.	n.s.	n.s.	0.027	n.s.	n.s.	n.s.
	MSA-P - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - Cx	n.s.	n.s.	n.s.	n.s.	0.042	n.s.	n.s.	n.s.
MTR	MSA-P - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - MSA-P	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	IPS - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	MSA-P - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
R1	PSP - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	MSA-P - IPS	0.025	0.006	n.s.	n.s.	n.s.	n.s.	0.011	n.s.
	PSP - IPS	n.s.	n.s.	(0.081)	0.025	n.s.	n.s.	n.s.	n.s.
	PSP - MSA-P	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	IPS - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
FA	MSA-P - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - Cx	n.s.	n.s.	n.s.	n.s.	0.016	0.026	n.s.	n.s.
	MSA-P - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - MSA-P	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	IPS - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	MSA-P - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	0.004	n.s.	n.s.
	MSA-P - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
MD	PSP - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - MSA-P	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	IPS - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	MSA-P - Cx	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - Cx	n.s.	n.s.	0.021	0.007	n.s.	n.s.	<0.001	0.001
	MSA-P - IPS	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	PSP - IPS	n.s.	n.s.	n.s.	0.010	n.s.	n.s.	(0.090)	0.023
	PSP - MSA-P	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	0.005	0.044

Note:—MT indicates magnetization transfer; MSA-P, multiple systems atrophy-type Parkinson; C, control; n.s., no significant difference ($P > .10$). Corrected P -values (Bonferroni) of 1-way post-hoc ANOVA for each quantitative map and region of interest are shown. Values in parentheses are trend level findings ($P < 0.10$ but > 0.05) that are shown when the contralateral structure showed a significant difference.

On-line Table 4: ROC analysis results^a

		PU		PA		CN		SN	
		Left	Right	Left	Right	Left	Right	Left	Right
R2	IPS-Cx	0.67 ^b	0.62 ^b	0.69 ^b	0.64 ^b	0.64 ^c	0.58 ^c	0.54 ^b	0.52 ^b
	MSA-P-Cx	0.50 ^c	0.55 ^b	0.57 ^c	0.70 ^c	0.70 ^c	0.78 ^c	0.56 ^b	0.52 ^c
	PSP-Cx	0.57 ^b	0.58 ^b	0.74 ^b	0.66 ^b	0.65 ^c	0.74 ^c	0.57 ^b	0.53 ^c
	MSA-P-IPS	0.77 ^c (0.044)	0.64 ^c	0.78 ^c (0.037)	0.85 ^c (0.009)	0.60 ^c	0.66 ^c	0.52 ^c	0.51 ^c
	PSP-IPS	0.61 ^c	0.52 ^c	0.67 ^l	0.53 ^c	0.52 ^c	0.59 ^c	0.56 ^b	0.61 ^c
R2*	PSP-MSA-P	0.61 ^b	0.54 ^b	0.83 ^b (0.019)	0.84 ^b (0.015)	0.58 ^b	0.52 ^b	0.53 ^b	0.54 ^c
	IPS-Cx	0.58 ^c	0.60 ^b	0.50 ^c	0.72 ^b	0.58 ^b	0.50 ^b	0.66 ^c	0.52 ^c
	MSA-P-Cx	0.88 ^{c,d} (0.004)	0.87 ^{c,d} (0.006)	0.75 ^c	0.88 ^{c,d} (0.004)	0.62 ^c	0.73 ^c	0.69 ^c	0.72 ^c
	PSP-Cx	0.69 ^c	0.68 ^c	0.53 ^b	0.54 ^c	0.54 ^b	0.54 ^c	0.61 ^c	0.61 ^c
	MSA-P-IPS	0.94 ^{c,d} (0.001)	0.95 ^{c,d} (0.001)	0.74 ^c	0.96 ^{c,d} (0.001)	0.68 ^c	0.71 ^c	0.53 ^c	0.67 ^c
MT	PSP-IPS	0.65 ^c	0.74 ^c	0.53 ^c	0.70 ^c	0.58 ^c	0.57 ^c	0.55 ^l	0.57 ^c
	PSP-MSA-P	0.79 ^b (0.038)	0.80 ^b (0.031)	0.75 ^b	0.89 ^{b,d} (0.005)	0.62 ^b	0.63 ^b	0.54 ^b	0.63 ^b
	IPS-Cx	0.64 ^c	0.58 ^c	0.50 ^c	0.50 ^b	0.80 ^c (0.014)	0.66 ^c	0.57 ^c	0.51 ^c
	MSA-P-Cx	0.59 ^b	0.68 ^b	0.60 ^b	0.63 ^b	0.62 ^c	0.65 ^c	0.70 ^b	0.69 ^b
	PSP-Cx	0.60 ^c	0.57 ^c	0.64 ^b	0.7 ^b	0.80 ^c (0.021)	0.74 ^c	0.57 ^b	0.74 ^b
MTR	MSA-P-IPS	0.64 ^b	0.75 ^b	0.56 ^b	0.56 ^b	0.67 ^b	0.56 ^b	0.73 ^b	0.64 ^b
	PSP-IPS	0.51 ^b	0.57 ^c	0.69 ^b	0.74 ^b	0.53 ^b	0.58 ^c	0.66 ^b	0.72 ^b
	PSP-MSA-P	0.70 ^c	0.73 ^c	0.67 ^b	0.68 ^b	0.72 ^c	0.66 ^c	0.64 ^c	0.61 ^b
	IPS-Cx	0.76 ^b (0.034)	0.65 ^c	0.64 ^c	0.54 ^c	0.81 ^c (0.010)	0.77 ^c (0.026)	0.59 ^c	0.52 ^c
	MSA-P-Cx	0.62 ^b	0.73 ^b	0.56 ^b	0.67 ^b	0.60 ^c	0.67 ^c	0.77 ^b (0.030)	0.71 ^b
R1	PSP-Cx	0.57 ^c	0.54 ^b	0.65 ^b	0.73 ^b	0.54 ^c	0.62 ^c	0.56 ^b	0.70 ^b
	MSA-P-IPS	0.78 ^b (0.029)	0.86 ^{b,d} (0.005)	0.67 ^b	0.75 ^b	0.76 ^b (0.041)	0.58 ^l	0.88 ^{b,d} (0.003)	0.71 ^b
	PSP-IPS	0.64 ^b	0.66 ^b	0.80 ^b (0.025)	0.82 ^b (0.017)	0.81 ^b (0.020)	0.61 ^b	0.69 ^b	0.71 ^b
	PSP-MSA-P	0.70 ^c	0.78 ^c (0.041)	0.62 ^b	0.61 ^b	0.58 ^b	0.53 ^b	0.76 ^c	0.54 ^b
	IPS-Cx	0.52 ^b	0.57 ^c	0.50 ^b	0.51 ^c	0.73 ^c	0.71 ^c	0.51 ^c	0.52 ^c
FA	MSA-P-Cx	0.66 ^c	0.62 ^c	0.54 ^c	0.67 ^c	0.73 ^c	0.76 ^c	0.74 ^c	0.84 ^{c,d} (0.006)
	PSP-Cx	0.50 ^c	0.64 ^c	0.58 ^b	0.54 ^b	0.77 ^c (0.035)	0.80 ^c (0.018)	0.58 ^b	0.59 ^b
	MSA-P-IPS	0.70 ^c	0.55 ^c	0.63 ^c	0.72 ^c	0.53 ^b	0.57 ^c	0.64 ^c	0.66 ^c
	PSP-IPS	0.62 ^c	0.62 ^c	0.56 ^b	0.52 ^b	0.68 ^c	0.70 ^c	0.53 ^c	0.54 ^b
	PSP-MSA-P	0.63 ^b	0.56 ^c	0.70 ^b	0.74 ^b	0.63 ^c	0.56 ^c	0.83 ^b (0.014)	0.80 ^b (0.027)
MD	IPS-Cx	0.52 ^b	0.56 ^c	0.51 ^b	0.57 ^c	0.59 ^c	0.75 ^c (0.040)	0.55 ^c	0.55 ^c
	MSA-P-Cx	0.62 ^c	0.66 ^c	0.54 ^c	0.63 ^c	0.69 ^c	0.74 ^c	0.61 ^c	0.52 ^b
	PSP-Cx	0.65 ^c	0.61 ^c	0.52 ^b	0.71 ^b	0.64 ^c	0.90 ^{c,d} (0.002)	0.51 ^b	0.68 ^c
	MSA-P-IPS	0.62 ^c	0.62 ^c	0.54 ^b	0.57 ^c	0.60 ^c	0.51 ^c	0.62 ^c	0.62 ^b
	PSP-IPS	0.66 ^b	0.58 ^c	0.56 ^b	0.80 ^b (0.032)	0.54 ^c	0.67 ^c	0.53 ^b	0.65 ^c
MD	PSP-MSA-P	0.51 ^c	0.51 ^b	0.61 ^b	0.84 ^b (0.016)	0.56 ^b	0.74 ^c	0.56 ^b	0.68 ^c
	IPS-Cx	0.57 ^c	0.52 ^c	0.61 ^c	0.56 ^c	0.65 ^c	0.55 ^b	0.81 ^c (0.010)	0.67 ^c
	MSA-P-Cx	0.67 ^c	0.68 ^c	0.69 ^c	0.67 ^c	0.61 ^b	0.52 ^b	0.61 ^c	0.76 ^c (0.035)
	PSP-Cx	0.74 ^c	0.71 ^c	0.84 ^c (0.016)	0.88 ^{c,d} (0.004)	0.68 ^c	0.58 ^b	0.94 ^{c,d} (0.001)	0.87 ^{c,d} (0.006)
	MSA-P-IPS	0.70 ^c	0.72 ^c	0.51 ^b	0.63 ^c	0.66 ^b	0.56 ^b	0.71 ^b	0.56 ^c
MD	PSP-IPS	0.67 ^c	0.71 ^c	0.76 ^c (0.058)	0.88 ^c (0.006)	0.58 ^c	0.54 ^b	0.73 ^c (0.099)	0.82 ^c (0.021)
	PSP-MSA-P	0.54 ^c	0.55 ^l	0.83 ^c (0.021)	0.81 ^c (0.026)	0.71 ^c	0.50 ^c	0.83 ^c (0.021)	0.83 ^c (0.021)

Note:—Cx indicates controls; MT, magnetization transfer; MSA-P, multiple systems atrophy-type Parkinson.

^aThe results of the ROC analysis for each quantitative map and region of interest are shown. An AUC of 1 signifies a perfect separation between the respective groups by the explored measure/region. An AUC of 0.5 is the minimum value equal to a group separation possible by chance. Values in parentheses are asymptotic *P* values (null hypothesis AUC = 0.5) and are shown when *P* is <.05.

^bLower values as a positive indicator.

^cHigher values as a positive indicator.

^dSurviving *P* < .0083.