

Supplemental Table 1.

Characteristics table by LBD pathology with the mean (SD) listed for the continuous variables and count (%) for the categorical variables. P-values for differences between groups come from an ANOVA for the continuous variables or a chi-squared test for the categorical variables.

	LBD-Present			LBD-Absent	P-value
	Total	LBD	LBD/AD		
No. of participants	n=17	n=11	n=6	n=7	
DaT Age, yrs (SD)	75.2 (8.8)	77.3 (9.1)	71.3 (7.4)	65.6 (8.0)	0.029*
Male, no. (%)	13 (76%)	10 (91%)	3 (50%)	7 (100%)	0.036*
APOE4, no. (%)	8 (47.1%)	4 (36.4%)	4 (66.7%)	5 (71.4%)	0.27
Age at death, yrs (SD)	78.5 (9.2)	80.5 (9.7)	74.8 (7.5)	68.0 (8.3)	0.028*
Scan to death, yrs (SD)	3.2 (1.9)	3.2 (2.3)	3.3 (0.9)	2.4 (1.6)	0.6
Education, yrs (SD)	15.1 (2.8)	14.9 (2.7)	15.5 (3.2)	16.9 (1.9)	0.33
UPDRS Total	11.8 (7.1)	11.7 (8.4)	12.2 (3.9)	3.4 (6.0)	0.11
MMSE (SD)	20.9 (7.7)	24.5 (4.7)	13.8 (7.9)	15.5 (4.4)	0.003*
CDR® Sum of boxes (SD)	6.3 (4.6)	5.5 (4.7)	8.3 (4.3)	7.5 (4.3)	0.44
Trails A (SD)	84.1 (37.2)	71.4 (33.9)	122.0 (11.5)	84.0 (44.8)	0.14
Dementia Rating Scale Total (SD)	119.8 (16.7)	123.0 (14.6)	110.3 (22.4)	94.7 (20.8)	0.08
Boston Naming Test (SD)	23.0 (6.6)	25.6 (2.8)	18.5 (9.3)	17.6 (7.4)	0.1
Global Deterioration Scale (SD)	4.3 (1.4)	4.1 (1.5)	4.6 (1.1)	5.3 (0.8)	0.22
Category Fluency Total (SD)	21.4 (9.0)	24.9 (4.7)	16.6 (11.7)	11.0 (4.5)	0.03*
pDLB, no. (%)	12 (71%)	8 (73%)	4 (67%)	0 (0%)	
ADem no. (%)	2 (12%)	0 (0%)	2 (33%)	5 (71%)	
Other, no. (%)	3 (18%)	3 (27%)	0 (0%)	2 (29%)	

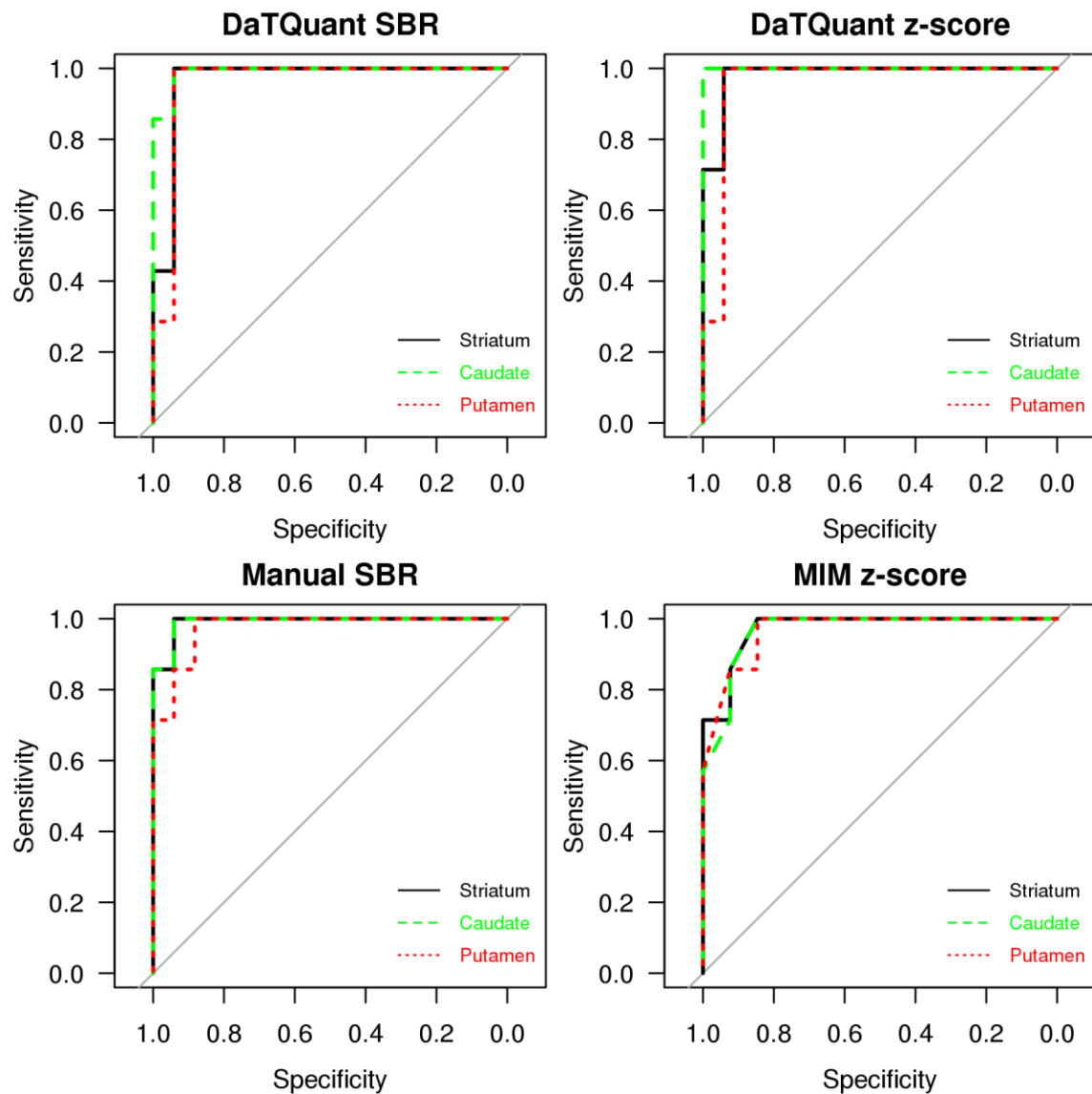
Abbreviations: AD=Alzheimer's disease; ADem=Alzheimer's disease dementia;

APOE4=Apolipoprotein ε4; CDR® = Clinical Dementia Rating Staging Instrument; DaT=¹²³I-

FP-CIT SPECT; pDLB= Probable Dementia with Lewy bodies; LBD=Lewy body disease;

MMSE=Mini-mental State Examination; UPDRS=Unified Parkinson's Disease Rating Scale.

Supplemental Figure 1. 2x2 AUROC figures for each semi-quantitative program: DaTQuant, MIMneuro and Manual. Each program has excellent discrimination between LBD and Non-LBD across the minimum striatum, minimum caudate and minimum putamen.



Supplemental Table 2. Proposed cutoff values showcased on the box-and-whisker plots shown in Figure 4, derived from the Youden method.

	Proposed Cutoff Value
DaTQUANT	
Striatum	1.57
Caudate	1.86
Putamen	1.49
zDaTQUANT	
Striatum	-.81
Caudate	-.08
Putamen	-.82
Manual	
Striatum	1.27
Caudate	1.55
Putamen	1.06
zMIM	
Striatum	-1.1
Caudate	-1.4
Putamen	-.95

Supplemental Table 3. Table of p-values from an ANOVA with contrast statements for the pairwise comparison.

	AD vs LBD	AD vs LBD/AD	LBD vs LBD/AD
DaTQUANT			
Striatum	<0.001	<0.001	0.49
Caudate	<0.001	<0.001	0.77
Putamen	<0.001	<0.001	0.37
zDaTQUANT			
Striatum	<0.001	<0.001	0.49
Caudate	<0.001	<0.001	0.81
Putamen	<0.001	<0.001	0.36
Manual			
Striatum	<0.001	<0.001	0.44
Caudate	<0.001	<0.001	0.81
Putamen	<0.001	<0.001	0.23
zMIM			
Striatum	<0.001	0.004	0.75
Caudate	0.003	0.01	0.9
Putamen	<0.001	0.004	0.54