

Supplementary Table S1

Patient	Diagnosis	Age at baseline	RTL baseline	RTL 12 month FU	RTL 24 month FU	RTL 36 month FU	RTL 48 month FU	RTL 60 month FU	Hoehn and Yahr stage baseline	Hoehn and Yahr stage 12 month FU	Hoehn and Yahr stage 36 month FU	Hoehn and Yahr stage 60 month FU	HY stage ≥ 3 within 3 yr from baseline	Cognitive status baseline	Cogn_stat_12 month FU	Cogn_stat_24 month FU	Cogn_stat_36 month FU	Cogn_stat_48 month FU	Cogn_stat_60 month FU	Dementia progression within ≤ 3 years
8	PD	64	1.06	0.99	0.82			0.74	3	2.5	3	2.5	Yes	Normal	Normal	Normal	Normal	Normal	MCI	No
9	PD	56	0.89	0.84		0.84	0.76	0.71	2	2	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
10	PD	81		0.74	0.77	0.68	0.72	0.82	1	2.5	3	3	Yes	Normal	Normal	Normal	Normal	Normal	Normal	No
18	PD	61	1.09	1.16	1.10	1.04	0.87	0.94	1	1	1.5	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
19	PD	77	0.76	0.63	0.57	0.49	0.42	0.47	1	1	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
20	PD	70	0.68	0.65	0.68	0.57	0.59	0.57	2	2.5	2	2	No	Normal	Normal	Normal	MCI	Normal	Normal	No
23	PD	71	0.54	0.47	0.46	0.47		0.44	1	1	2	2	No	Normal	MCI	MCI	MCI	MCI	MCI	No
24	PD	84	0.94	1.15					4	4	5		Yes	MCI	MCI	Dementia	Dementia			Yes
33	PD	55	0.94	0.82	0.95	0.77	0.90	0.79	2	2	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
34	PD	63	0.85	0.71	0.80	0.81	0.83	0.63	2	2	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
37	PD	65	0.73	0.78		0.74		0.86	2	2	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
39	PD	77		0.62	0.75	0.66	0.52	0.50	2	3	2	4	Yes	Normal	Normal	Normal	Normal	Normal	Normal	No
42	PD	55		0.87	0.89		0.86	0.73	2	2	2	4	No	MCI	MCI	MCI	MCI	MCI	Dementia	No
43	PD	83	0.82		0.78	0.66			3	3	5		Yes	MCI	MCI	MCI	Dementia			Yes
46	PD	55		0.76	0.75	0.66	0.83	0.77	2	2	3	3	Yes	Normal	Normal	Normal	Normal	Normal	Normal	No
53	PD	65	0.75	0.68	0.62				2	2	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
57	PD	62	0.82	0.74	0.84	0.78	0.73	0.77	2.5	2	2	2	No	MCI	MCI	MCI	MCI	MCI	MCI	No
59	PD	63		0.55	0.61	0.55	0.55	0.61		1	2	2	No	Normal	MCI	MCI	MCI	Normal	Normal	No
62	PD	69	0.84	0.72	0.81	0.79	0.72	0.69	3	1	2.5	2.5	Yes	Normal	Normal	Normal	Normal	Normal	Normal	No
64	PD	77	0.64	0.52	0.67	0.50	0.57	0.56	3	3	3	4	Yes	MCI	Normal	Normal	Normal	Normal	Normal	No
65	PD	82	0.74	0.67	0.72	0.66		0.71	2	2	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
67	PD	56	0.87	0.97	0.90			0.79	2	2		2	No	MCI	Normal	Normal	Normal	Normal	MCI	No
68	PD	70			0.76	0.77	0.71	0.79			2.5	4	No	MCI	MCI	MCI	MCI	MCI	MCI	No
72	PD	62	0.65	0.69	0.60	0.76	0.71	0.72	3	3	2	2	Yes	MCI	MCI	MCI	MCI	MCI	MCI	No
73	PD	64	0.86	0.87	0.83	0.94	0.81	0.85	2	3	2	2.5	Yes	MCI	MCI	MCI	MCI	MCI	MCI	No
74	PD	65	0.65	0.72	0.67	0.58	0.66	0.62	2	2	2	2	No	MCI	MCI	MCI	MCI	MCI	MCI	No
78	PD	58	0.55	0.61	0.66	0.51	0.52	0.52	2	2	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
79	PD	72	0.85	0.78	0.68	0.72	0.66	0.86	1.5	2	2	3	No	MCI	MCI	MCI	Dementia	Dementia	Dementia	Yes
81	PD	57	0.78	0.74	0.94	0.81	0.84	0.67	1	1	1	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
86	PD	40	1.07		1.08	0.82	0.87	0.96	1		2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
87	PD	78	0.73	0.65	0.58	0.59	0.51	0.56	2.5	2	2.5	4	No	Normal	Normal	Normal	Normal	Normal	Normal	No
89	PD	76	0.67	0.78	0.63	0.59			2	2	3		Yes	MCI	MCI	Dementia	Dementia			Yes
96	PD	59	0.95		0.80	0.78	0.71	0.77	2.5		2	2	No	Normal	Normal	Normal	Normal	Normal	MCI	No
97	PD	58	0.78	1.03	0.98	0.97	0.86	0.92	1	1.5	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
101	PD	73	0.70	0.94	0.81	0.95	0.80	0.77	2	2.5	3	3	Yes	MCI	MCI	MCI	MCI	Dementia	Dementia	No
106	PD	76	0.85	0.95	0.88		0.92	0.91	2	2	4	4	Yes	Normal	Normal	Normal	MCI	Dementia	Dementia	No
114	PD	77	0.96	0.76	0.70	0.83	0.91		3	5	4		Yes	MCI	Dementia	Dementia	Dementia	Dementia	Dementia	Yes
118	PD	70	0.74	0.75	0.76	0.67	0.65	0.70	2	2	2	2	No	MCI	Normal	Normal	Normal	Normal	Normal	No
119	PD	83			0.68	0.67	0.66		5	5	4	4	Yes	MCI	MCI	Dementia	Dementia	Dementia	Dementia	Yes
133	PD	62	0.49	0.69			0.48	0.63	2	2.5	3	2	Yes	Normal	Normal	Normal	Normal	Normal	Normal	No
141	PD	65	1.02	0.94		0.95	0.86	0.91	1.5	1.5	2.5	2.5	No	Normal	MCI	MCI	MCI	Dementia	Dementia	No
146	PD	67	0.77	0.73	0.61	0.66	0.76	0.77	2	2	2	2	No	MCI	MCI	MCI	MCI	Dementia	Dementia	No
150	PD	67	0.33	0.47	0.44	0.62	0.59	0.45	2.5	2	2	2	No	MCI	MCI	MCI	MCI	MCI	MCI	No
151	PD	60	0.67	0.67	0.60	0.66	0.63	0.70	2	2	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
157	PD	79	0.73	0.68	0.50	0.59	0.54	0.69	2.5	2.5	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
171	PD	79	0.78	0.73	0.74	0.65			4	5	4	4	Yes	Normal	Normal	Normal	MCI	Dementia	Dementia	No
173	PD	47	0.83	0.86	0.70	0.61	0.83	0.74	2	2	2	2	No	Normal	Normal	Normal	MCI	Normal	Normal	No
174	PD	77		0.60	0.63	0.61			2.5	2.5	3		Yes	MCI	MCI	Dementia	Dementia	Dementia	Dementia	Yes
175	PD	80	0.95	0.80	0.86	0.85		0.79	3	2	2	2.5	Yes	MCI	MCI	MCI	MCI	Dementia	Dementia	No
177	PD	61	0.51	0.58	0.59	0.49	0.55	0.64	2.5	2	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
180	PD	63	0.78	0.73	0.73	0.66	0.71	0.58	2	2	2.5	2	No	Normal	Normal	Normal	Normal	Normal	MCI	No
187	PD	70	0.88	0.95	0.71	0.80	0.73	0.80	2	2.5	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
188	PD	84	0.59	0.73	0.52	0.60	0.66	0.46	3	3	3	2.5	Yes	Normal	Normal	Normal	Normal	Normal	MCI	No
195	PD	71	0.87	0.81	0.61	0.66	0.87		2.5	1	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
196	PD	59	0.80	0.70		0.66	0.64		2	1.5	2	2	No	Normal	Normal	Normal	Normal	Normal	Normal	No
198	PD	71	0.58	0.53	0.54	0.43	0.57	0.48	2.5	1	2	2	No	MCI	Normal	Normal	Normal	Normal	MCI	No
199	PD	76	0.85		0.88	0.94	0.86	0.80	2.5	2.5	2	2.5	No	MCI	MCI	Dementia	Dementia	Dementia	Dementia	Yes
206	PD	74	0.74	0.72	0.66	0.81			2.5	2	2	2	No	MCI	MCI	MCI	MCI	MCI	MCI	No
208	PD	79	0.65	0.55	0.64				3	3	2.5		Yes	MCI	MCI					No
211	PD	76		0.62	0.74	0.51	0.61		2	3	3	3	Yes	MCI	MCI	MCI	MCI	MCI	MCI	No
213	PD	88	0.92		0.59				5	4			Yes	Normal	Normal					No
216	PD	65	0.92	0.81	0.85	0.78	0.90		1.5	3	2		Yes	Normal	Normal	Normal	Normal	Normal	Normal	No
218	PD	69	1.15	0.89		0.90	0.97		3	2	4	4	Yes	Normal	MCI	MCI	Dementia	Dementia	Dementia	Yes

