

Table S1. Patient’s demographic, clinical and neuroimaging characteristics. 9HPT: 9-hole peg test; ANA: antinuclear antibody; BoNT: botulinum toxin; BZD: benzodiazepine; Delta-9-THC: delta-9-tetrahydrocannabinol; DD: disease duration; DMD: disease modifying drug; EDSS: expanded disability status scale; F: female; M: male; N/A: not applicable; RR: relapsing-remitting; SNRI: serotonin–norepinephrine reuptake inhibitor; SP: secondary progressive; SSRI: selective serotonin reuptake inhibitors; T25FW: timed 25-foot walk.

I D	Age (y)	Sex	Clin- ical Phe- no- type	DD (y)	EDSS	DMD	Symptomatic Therapy	Comorbidities	9HPT Dominant Hand (s)	9HPT Nondominant Hand (s)	T25F W (s)	Brain Lesion Load (mL)	Spinal Lesion
1	42	F	RR	13	3.0	Alemtuzumab	None	None	21.5	22.5	5.2	21.530	Yes
2	42	F	RR	5	1.0	Dimethyl fumarate	None	Thyroiditis	21.0	22.5	5.5	13.537	No
3	27	M	RR	11	3.0	Fingolimod	Baclofen, Pregabalin	None	23.3	24.0	5.8	3.833	Yes
4	49	F	RR	21	0.0	Teriflunomide	None	Headache	17.7	18.2	4.5	3.610	Yes
5	34	M	RR	1	0.0	Dimethyl fumarate	None	None	20.7	21.0	5.1	1.329	Yes
6	51	F	RR	11	2.0	Teriflunomide	None	Headache	16.8	18.7	5.8	6.568	Yes
7	43	F	RR	31	3.5	Cladribine	4-aminopyridine	None	25.0	25.0	6.4	27.366	Yes
8	45	F	RR	12	2.5	None	None	Overeating	21.5	20.9	5.2	6.646	Yes
9	30	F	RR	5	0.0	Natalizumab	None	None	26.0	23.0	5.2	3.249	No
10	30	F	RR	1	1.0	Cladribine	None	None	22.4	24.8	5.3	13.461	Yes
11	36	M	RR	11	2.5	Dimethyl fumarate	None	None	17.7	19.0	6.4	0.792	Yes
12	32	F	RR	9	1.5	Cladribine	Solifenacin	None	24.5	24.0	6.2	9.930	Yes
13	30	M	RR	3	1.5	None	None	None	22.4	20.0	5.3	7.097	No
14	55	M	RR	28	1.5	None	None	None	23.0	22.4	5.5	20.925	No
15	52	F	RR	9	1.5	Teriflunomide	None	None	18.3	19.5	4.1	12.942	Yes
16	46	F	RR	3	2.5	Peginterfeon beta-1a	None	None	25.0	25.4	6.7	1.522	No
17	48	F	RR	6	1.0	Teriflunomide	None	Depression	16.8	18.9	4.6	0.194	No
18	49	F	RR	7	3.0	Cladribine	Pregabalin	Hypertension	23.5	24.4	7.4	14.331	Yes
19	50	F	RR	5	0.0	Teriflunomide	None	None	18.0	18.9	5.6	0.109	Yes
20	39	M	RR	17	2.0	Fingolimod	None	None	27.8	24.5	8.0	19.155	Yes
21	48	F	RR	14	4.0	Dimethyl fumarate	4-aminopyridine	None	23.8	23.5	6.2	30.400	Yes
22	38	F	RR	4	2.0	Interferon beta-1a	SSRI	Thyroiditis, Obesity, Depression, Arthritis	20.8	20.9	5.9	21.546	Yes
23	40	M	RR	13	4.0	Alemtuzumab	None	Headache	22.1	21.0	5.7	20.694	Yes
24	38	M	RR	8	1.0	Teriflunomide	Tadalafil	None	17.8	17.8	3.9	1.178	Yes
25	23	M	RR	1	0.0	None	None	None	20.7	21.4	5.1	23.227	Yes
26	51	F	RR	8	3.0	None	BZD, Amisulpride	Arthritis	25.5	23.3	5.6	2.418	Yes
27	29	M	RR	6	1.5	Dimethyl fumarate	None	Depression	23.9	20.0	4.2	2.125	Yes
28	43	F	RR	13	2.0	Teriflunomide	None	None	18.5	20.9	4.7	3.730	No
29	48	M	RR	24	4.5	None	SSRI, BDZ	Depression, High blood pressure	20.4	19.0	5.5	9.266	No

30	57	M	RR	33	1.5	None	None	Hyperlipidemia	25.9	28.7	7.7	9.237	Yes
31	43	F	RR	10	2.5	Dimethyl fumarate	Baclofen	ANA positivity	30.0	30.4	8.2	0.670	Yes
32	49	F	RR	11	3.0	Fingolimod	None	High blood pressure	26.0	24.5	12.7	15.768	Yes
33	41	M	RR	19	2.5	Teriflunomide	Solifenacin	Thyroiditis	20.5	21.8	5.5	0.348	Yes
34	47	F	RR	4	4.0	None	SSRI	Endometriosis, Depression	23.9	25.2	6.8	3.276	Yes
35	50	F	RR	16	2.0	Natalizumab	None	None	20.4	20.5	5.8	12.724	Yes
36	42	F	RR	11	1.0	Teriflunomide	None	None	18.2	18.9	5.4	14.256	Yes
37	44	F	RR	7	0.0	None	None	None	21.3	23.5	5.2	8.285	Yes
38	51	M	SP	7	5.0	Fingolimod	Pregabalin	None	22.7	23.5	12.1	7.899	Yes
39	44	M	SP	26	5.0	Fingolimod	Baclofen	None	34.3	42.6	13.7	49.560	Yes
40	47	F	SP	9	4.0	Fingolimod	SSRI	Obesity, Depression	23.5	25.5	7.0	7.068	Yes
41	62	M	SP	14	5.0	Dimethyl fumarate	Tamsulosin	None	29.1	27.4	13.9	14.413	Yes
42	49	F	SP	9	7.0	Siponimod	Baclofen, Tamsulosin, SSRI	Depression	30.2	32.5	N/A	4.148	Yes
43	71	F	SP	33	4.5	Fingolimod	None	High blood pressure	23.3	23.7	7.3	14.356	Yes
44	49	M	SP	26	3.5	Ocrelizumab	SSRI	Depression	24.5	24.4	11.5	23.162	Yes
45	42	F	SP	24	5.5	Ocrelizumab	BoNT, 4-aminopyridine. BDZ	None	30.8	40.3	10.3	21.894	Yes
46	52	M	SP	18	6.0	Dimethyl fumarate	Delta-9-THC	Depression	61.0	N/A	N/A	36.578	Yes
47	46	F	SP	21	7.5	Ocrelizumab	Delta-9-THC	None	N/A	N/A	N/A	14.500	Yes
48	53	M	SP	3	4.5	Fingolimod	4-aminopyridine	None	25.7	25.5	8.6	29.847	Yes
49	49	F	SP	5	6.0	Fingolimod	Baclofen	None	32.6	34.0	7.4	4.740	Yes
50	42	M	SP	8	3.0	Alemtuzumab	None	None	32.6	28.8	8.1	13.350	Yes
51	59	F	SP	35	2.5	None	Delta-9-THC	None	22.9	23.5	6.4	23.967	Yes
52	53	M	SP	17	5.0	Fingolimod	Baclofen, SSRI, Solifenacin	Depression	24.8	26.3	8.6	15.703	Yes
53	43	F	SP	6	4.5	Fingolimod	Pregabalin, Solifenacin	Uveitis	23.9	26.7	7.9	21.497	Yes
54	57	M	SP	22	7.0	Ocrelizumab	SNRI, Statins	Depression, Hyperlipidemia	42.0	N/A	N/A	9.324	Yes
55	57	F	SP	24	6.0	Ocrelizumab	SSRI	Depression	33.5	61.0	7.9	8.681	Yes