

Table A in S1 File: Diagnostic findings before the initiation of treatment

	T ₂ lesions in MRI (%)		Gd ⁺ lesions in MRI (%)		Pathologic MEP	Pathologic SSEP	Pathologic VEP
	brain	spinal	brain	spinal			
CIS (n=21)	71.4	65.0	52.4	33.3	10 of 16	10 of 18	16 of 17
RR-MS (n=46)	100	80.0	52.2	28.6	18 of 24	23 of 29	18 of 29
SP-MS (n=18)	100	100	77.8	22.2	10 of 11	9 of 9	8 of 8
PP-MS (n=5)	100	100	20.0	20.0	5 of 5	5 of 5	5 of 5
Total (n=90)	77.8	61.1	44.4	20.2	43 of 56	53 of 60	41 of 60

CIS = clinically isolated syndrome, Gd⁺ = gadolinium contrast medium enhancement, MEP = motor-evoked potentials, MRI = magnetic resonance imaging, MS = multiple sclerosis, PP-MS = primary progressive MS with acute worsening, RR-MS = relapsing-remitting MS, SP-MS = secondary progressive MS with superimposed relapse, SSEP = somatosensory-evoked potentials, VEP = visual-evoked potentials, T₂ = T₂ weighted imaging. Pathologic result of MEP/SSEP/VEP = loss of potential or prolonged latency or definite site difference

Table B in S1 File: Administration of disease modifying drugs before the initiation of therapeutic plasma exchange (n=47)

Disease modifying drug	N
Interferone beta 1-a	12
Interferone beta 1-b	3
Intravenous immunglobuline	3
Mitoxantrone	8
Azathioprine	2
Natalizumab	3
Intermittent GCS treatment	8
Glatirameracetate	7
Cyclophosphamide	1

GCS = Glucocorticosteroid

Table C in S1 File: Univariate statistical analysis of therapeutic plasma exchange in clinically isolated syndrome and multiple sclerosis patients

Variable	TPE response (n)	TPE non-response (n)	Total (n)	<i>p</i>
Group analysis				
CIS vs. RR-MS	17 vs. 38	4 vs. 8	21/46	1.000
CIS vs. SP-MS	17 vs.7	4 vs. 11	21/18	0.010
RR-MS vs. SP-MS	38 vs. 7	8 vs. 11	46/18	0.002
CIS/RR-MS vs. SP-MS/PP-MS	55 vs. 10	12 vs. 13	67/23	0.001
Gender				0.451
Male	22	6	28	
Female	43	19	62	
Age in years (median, range)	35.0 (18-69)	41.0 (20-66)		0.057
DMD				
Yes	28	18	46	
No	37	7	44	0.017
Disease activity before TPE				0.488
0 relapses	17	4	21	

1 relapse	1	1	2	
≥ 2 relapses	47	20	67	
Worsening during GCS treatment				
Yes	16	12	28	
No	49	13	62	0.043
Time to TPE				1.000
≤ 6 weeks	18	7	25	
> 6 weeks	47	18	65	
Symptom extent before TPE				0.343
Monosymptomatic	9	6	15	
Polysymptomatic	56	19	75	
GCS treatment before TPE				0.104
1g MP only	16	10	26	
1g and 2g MP	44	11	55	
MEP before TPE				0.082
Pathologic	28	15	43	
Physiologic	12	1	13	

VEP before TPE				0.346
Pathologic	29	12	41	
Physiologic	16	3	19	
SSEP before TPE				0.173
Pathologic	37	16	53	
Physiologic	7	0	7	
T₂ lesions in MRI				1.000
Detected	57	19	76	
Not detected	1	0	1	
Gd⁺ lesions in MRI				
Detected	42	5	47	0.001
Not detected	16	14	30	
EDSS before TPE				
EDSS ≤ 5	46	10	56	0.014
EDSS > 5	19	15	34	

CIS = Clinically Isolated Syndrome, DMD = Disease modifying drug, EDSS = Expanded disability status scale, Gd⁺ = Gadolinium contrast medium enhancement, GCS = Glucocorticosteroid, MEP = Motor-evoked potentials, Monosymptomatic = single functional system affected, MRI = Magnetic resonance imaging, MS = Multiple sclerosis, Polysymptomatic = ≥ 2 functional systems affected, PP-MS = Primary

progressive MS with acute worsening, RR-MS = Relapsing-remitting MS, SP-MS = Secondary progressive MS with superimposed relapse, SSEP = Somatosensory-evoked potentials, T₂ = T₂ weighted imaging, TPE = Therapeutic plasma exchange, VEP = Visual-evoked potentials, vs. = versus. Pathologic result of MEP/SSEP/VEP = loss of potential or prolonged latency or definite site difference.

PP-MS patients excluded due to low patient number of this group.