

**Supplementary Table S1.** Characteristics of the first 26 relapse(s) that occurred in the 64 patients included in the study.

Characteristic	Overall (n = 26)	MPA (n = 19)	PAN (n = 7)	<i>p</i> <sup>a</sup>	12 pulses (n = 12)	6 pulses (n = 14)	<i>p</i> <sup>b</sup>
Months after treatment day 1	32.2 ± 32.5 [4.8–118.7]	36.2 ± 36.1 [5.5–118.7]	21.4 ± 17.3 [4.8–48.4]	0.31	31.8 ± 25.0 [5.5–82.0]	32.5 ± 38.8 [4.8–118.7]	0.95
Treatment being taken at relapse							
GC	12 (46)	7 (37)	5 (71)	0.19	3 (25)	9 (64)	0.045
GC dose >10 mg/day	7 (27)	3 (16)	4 (57)	0.06	1 (8)	6 (43)	0.08
Immunosuppressant	3 (12)	3 (16)	0	0.54	3 (25)	0	0.09
No treatment	12 (46)	10 (53)	2 (29)	0.39	7 (58)	5 (36)	0.43
BVAS	10.4 ± 6.3	11.5 ± 6.4	7.4 ± 5.2	0.14	13.7 ± 6.0	7.6 ± 5.3	0.01
Severe relapse	23 (88)	16 (84)	7 (100)	0.54	11 (92)	12 (86)	1.00
Clinical manifestation							
General symptoms	16 (62)	10 (53)	6 (86)	0.19	5 (42)	11 (79)	0.11
Myalgias	6 (23)	3 (16)	3 (43)	0.29	0	6 (43)	0.02
Arthralgias	7 (27)	3 (16)	4 (57)	0.06	1 (8)	6 (43)	0.08
Cutaneous symptoms	6 (23)	4 (21)	2 (29)	1.00	4 (33)	2 (14)	0.37
Ear, nose & throat	1 (4)	1 (5)	0	1.00	0	1 (7)	1.00
Pulmonary symptoms	6 (23)	6 (32)	0	0.15	5 (42)	1 (7)	0.07
Alveolar hemorrhage	6 (23)	6 (32)	0	0.15	5 (42)	1 (7)	0.07
Cardiac involvement	0	0	0	-	0	0	-
Abdominal pain	4 (15)	2 (11)	2 (29)	0.29	2 (17)	2 (14)	1.00
Renal involvement	14 (54)	11 (58)	3 (43)	0.67	9 (75)	5 (36)	0.045
Proteinuria >0.5 g/day	9 (35)	8 (42)	1 (14)	0.36	6 (50)	3 (21)	0.22
Hematuria >10 red cells/mL	7 (27)	6 (32)	1 (14)	0.63	4 (33)	3 (21)	0.67
Creatininemia (μmol/L)	203 ± 137	228 ± 156	153 ± 76	0.25	243 ± 143	173 ± 130	0.25
125–249	7 (27)	5 (26)	2 (29)	1.00	4 (33)	3 (21)	0.67
250–499	5 (19)	4 (21)	1 (14)	1.00	4 (33)	1 (7)	0.15
>500	1 (4)	1 (5)	0	1.00	0	1 (7)	1.00
Neurological symptoms	4 (15)	3 (16)	1 (14)	1.00	3 (25)	1 (7)	0.31
Mononeuritis multiplex	3 (12)	2 (11)	1 (14)	1.00	2 (17)	1 (7)	0.58
CNS symptoms	2 (8)	2 (11)	0	1.00	1 (8)	1 (7)	1.00
Laboratory findings							
CRP (mg/L)	68 ± 55	78 ± 58	43 ± 45	0.30	54 ± 38	76 ± 64	0.50
ANCA	10/15 (67)	10/13 (77)	0/2	0.09	4/7 (57)	6/8 (75)	0.61
Treatment							
GC	25 (96)	18 (95)	7 (100)	1.00	12 (100)	13 (93)	1.00
GC pulses	11 (42)	10 (53)	1 (14)	0.18	5 (42)	6 (43)	1.00
Immunosuppressant	17 (65)	14 (74)	3 (43)	0.19	8 (67)	9 (64)	1.00
Immediate outcome							
New remission after 1 <sup>st</sup> -line therapy	20 (77)	14 (74)	6 (86)	1.00	8 (67)	12 (86)	1.00
New remission after 2 <sup>nd</sup> -line therapy	4 (15)	3 (16)	1 (14)	-	3 (25)	1 (7)	-
Death	2 (8)	2 (11)	0	-	1 (8)	1 (7)	-

Values are expressed as mean ± SD and sometimes [range] for quantitative variables and n (%) for qualitative variables.

ANCA: antineutrophil cytoplasm antibodies; BVAS: Birmingham vasculitis activity score; CNS: central nervous system; CRP: C-reactive protein; GC: glucocorticoids; MPA: microscopic polyangiitis; PAN: polyarteritis nodosa.

<sup>a</sup>MPA vs. PAN. <sup>b</sup>12 vs. 6 cyclophosphamide pulses.

*p* values were computed with Student's *t*-test for quantitative variables and Fisher's exact or chi<sup>2</sup> tests (expected frequencies ≤5) for qualitative variables.

**Supplementary Table S2.** Immunosuppressants prescribed after IV cyclophosphamide.

Immunosuppressant	All (n = 64)	MPA (n = 40)	PAN (n = 24)	12 pulses (n = 33)	6 pulses (n = 31)
Oral cyclophosphamide	9 (14)	6 (15)	3 (13)	5 (15)	4 (13)
Azathioprine	12 (19)	7 (18)	5 (21)	5 (15)	7 (23)
Methotrexate	2 (3)	2 (5)	0	0	2 (6)
Mycophenolate mofetil	5 (8)	5 (13)	0	4 (12)	1 (3)
IV Immunoglobulins	3 (5)	2 (5)	1 (4)	1 (3)	2 (7)
Plasma exchanges	3 (5)	2 (5)	1 (4)	2 (6)	1 (3)
Rituximab	0	0	0	0	0
Cyclosporine	1 (2)	1 (3)	0	1 (3)	0
Tacrolimus	1 (2)	1 (3)	0	1 (3)	0

Data were censored after 120 months. P is the result of Fisher or chi<sup>2</sup> tests, as appropriate  
 IV: intravenous; MPA: microscopic polyangiitis; PAN: polyarteritis nodosa; NS: non-significant,  
 $p > 0.05$ .

All comparisons between MPA and PAN, and 12 vs. 6 cyclophosphamide pulses were non-significant.