







Table 1
Characteristics of MS cases analyzed in this study.

Genetic study			
	MS patients (336)	Male (110)	Female (226)
Disease course			
RR	250	76	174
SP	86	34	52
Age at diagnosis			
Min	23	23	23
Q1	10	13	10
Median	29	27.5	29
Q3	35	35	35
Max	50	48	50
EDSS			
Min	1.0	1.0	1.0
Q1	1.5	2.0	1.5
Median	3.0	3.5	3.0
Q3	5.0	6.0	4.5
Max	8.0	8.0	8.0
MSSS			
Min	0.38	0.38	0.45
Q1	2.65	2.82	2.60
Median	4.21	4.33	4.19
Q3	6.46	6.55	6.46
Max	9.70	9.18	9.70
mRNA expression analysis			
	MS patients (39)	Male (13)	Female (26)
Disease course			
RR	39	13	26
SP	0	0	0

RR – Relapsing–Remitting MS course.
 SP – Secondary Progressive MS course.
 EDSS – Expanded Disability Status Scale.
 MSSS – Multiple Sclerosis Severity Score.
 Min, Max – minimal and maximal value.
 Q1 – first quartile.
 Q3 – third quartile.

Table 1 Clinical characteristics of the included patients

Variable	Min	Q1	Median	Q3	Max	
Age	43	65.75	68.5	74	79	
BMI	18.5	20.75	22.5	23	25	
CRP before	0.30	1.00	1.16	2.15	12.90	
CRP after	0.31	1.00	1.33	1.98	14.92	
CRP before-after	-11.90	-0.18	0.01	0.48	13.69	
MMSE	12	14	19	22	23	
MoCA 7.2	3	10.75	14	16.25	23	
DSM V classification						
	Mild		Moderate		Serious	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
	5	25	7	35	8	40
Gender	<i>n</i>	%	Age*	BMI*	MMSE*	
Men	7	35	69	22	18	
Women	13	65	68	23	19	

Q1, Q3—1st and 3rd quartile; * median

Table 3 Spontaneous and VSV-induced cytokine production by PBLs of AD patients ($n = 20$) after PRP treatment. General impact and data grouped by MMSE score are present. Means of ratio of the cytokine levels (before/after PRP treatment) are presented for all levels of the MMSE score. Virus effect was considered as the ratio of VSV induced and spontaneous. ANOVA linear contrast was used to test relationship between MMSE and virus effect (F -test). PRP effect was tested with Student t test

MMSE	Mean	n	TNF- α		IFN- γ		IL-1 β		IL-10	
			Spontaneous	VSV-induced	Spontaneous	VSV-induced	Spontaneous	VSV-induced	Spontaneous	VSV-induced
23–22	22.2	6	0.320	0.161	0.817	0.989	0.729	0.691	0.131	0.213
21–19	19.6	5	1.181	2.548	0.766	1.123	0.794	0.935	1.091	0.868
18–14	15.2	5	0.491	0.420	1.036	0.712	0.352	0.145	0.059	0.027
13–12	12.5	4	2.551	1.039	0.674	0.867	0.973	0.498	1.303	0.987
Total mean ratio after/before (regardless of MMSE)		20	0.747	0.593	0.821	0.916	0.658	0.472	0.288	0.246
Mean change [%] after PRP treatment			– 25.3%	– 40.7	– 17.9	– 8.4	– 34.2	– 52.8	– 71.2	– 75.4
CI95% for the mean change	Lower		– 71.20%	– 81.6	– 33.8	– 25.5	– 54.8	– 76	– 89.8	– 91.4
	Upper		102.60%	102.60	3.30	10.10	– 5.40	– 14.50	– 16.90	– 22.80
F -test for MMSE effect			0.179		0.293		2.794		0.695	
H_0 : VSV effect independent of MMSE										
H_1 : linear relationship										
p value for F -test			0.678		0.596		0.114		0.417	
$r_{\text{effect size}}^*$ (MMSE effect size)			0.105		0.134		0.386		0.204	
Student t test for PRP effect			– 0.574	– 0.819	– 1.687	– 0.862	– 2.126	– 2.322	– 2.247	– 2.423
H_0 : total mean ratio ≥ 1										
H_1 : total mean ratio < 1										
p value for the t test			0.2862	0.2114	0.054	0.1996	0.0234**	0.0158**	0.0184**	0.0128**
Power of the t test			0.145	0.299	0.191	0.092	0.685	0.918	0.915	0.943

* $r_{\text{effect size}}$ means the correlation coefficient between ratio of VSV-induced and spontaneous and MMSE means both non-contrast between-group variation and the within-group variation are incorporated; ** statistically significant