

Supplementary table (1): Post hoc analysis (TUKEY) test:

Dependent Variable			Mean Difference	Std. Error	Sig.
BCVA	control group	MS ON+	.59125 [*]	.03003	.000
		MS ON-	.29500 [*]	.03003	.000
CMT	control group	MS ON+	14.875 [*]	4.288	.002
		MS ON-	5.975	4.288	.348
TMV	control group	MS ON+	.44425 [*]	.06232	.000
		MS ON-	.28425 [*]	.06232	.000
SS Peri -FVD	control group	MS ON+	2.250 [*]	.721	.006
		MS ON-	2.300 [*]	.721	.005
SN Para-FVD	control group	MS ON+	-1.500-	.926	.241
		MS ON-	-2.800- [*]	.926	.009
FFVD	control group	MS ON+	17.450 [*]	3.857	.000
		MS ON-	5.800	3.857	.293
FS Para-FVD	control group	MS ON+	18.000 [*]	4.747	.001
		MS ON-	12.100 [*]	4.747	.032
FS Peri-FVD	MS ON-	MS ON+	17.350 [*]	3.033	.000
		MS ON-	6.700	3.033	.074
FI Para-FVD	control group	MS ON+	23.575 [*]	3.167	.000
		MS ON-	21.775 [*]	3.167	.000
FI Peri- FVD	control group	MS ON+	19.084 [*]	3.223	.000
		MS ON-	9.934 [*]	3.223	.007
FN Para-FVD	control group	MS ON+	10.125	5.082	.119
		MS ON-	14.675 [*]	5.082	.013
FN Peri-FVD	control group	MS ON+	16.171 [*]	4.297	.001
		MS ON-	3.171	4.297	.741
FT Para-FVD	control group	MS ON+	19.375 [*]	3.388	.000
		MS ON-	20.075 [*]	3.388	.000
FT Peri-FVD	control group	MS ON+	21.650 [*]	4.033	.000
		MS ON-	14.183 [*]	4.356	.004
SRNFL	control group	MS ON+	7.650 [*]	3.189	.047
		MS ON-	8.050 [*]	3.189	.034
IRNFL	control group	MS ON+	15.925 [*]	3.496	.000
		MS ON-	15.225 [*]	3.496	.000
NRNFL	control group	MS ON+	9.100 [*]	2.417	.001

		MS ON-	7.000*	2.417	.012
TRNFL	control group	MS ON+	11.300*	2.150	.000
		MS ON-	17.650*	2.150	.000
Average GCC	control group	MS ON+	11.125*	1.939	.000
		MS ON-	11.575*	1.939	.000
SGCC	control group	MS ON+	25.925*	8.833	.011
		MS ON-	24.675*	8.833	.017
IGCC	control group	MS ON+	10.975*	1.995	.000
		MS ON-	13.375*	1.995	.000
SDVD	control group	MS ON+	.575	.941	.814
		MS ON-	3.425*	.941	.001
IDVD	control group	MS ON+	1.075	1.305	.689
		MS ON-	3.175*	1.305	.043
NDVD	control group	MS ON+	.325	1.213	.961
		MS ON-	3.925*	1.213	.004
TDVD	control group	MS ON+	2.725*	1.120	.043
		MS ON-	1.125	1.120	.575
PARP 1	control group	MS ON+	-.23100 ⁻	.02980	.000
		MS ON-	-.14300 ⁻	.02980	.000

CMT (central macular thickness), TMV (total macular volume), SS Peri-FVD (superficial superior peri-foveal vessel density), SN Para-FVD (superficial nasal para-foveal vessel density), FFVD (full foveal vessel density), FS Para-FVD (full superior para-foveal vessel density), FS Peri-FVD (full superior peri-foveal vessel density), FI Para-FVD (full inferior para-foveal vessel density), FI-Peri FVD (full inferior peri-foveal vessel density), FN Para-FVD (full nasal para foveal vessel density), FN Peri-FVD (full nasal peri-foveal vessel density), FT Para-FVD (full temporal para-foveal vessel density), FT Peri-FVD (full temporal peri-foveal vessel density), SRNFL (superior peri-papillary retinal nerve fiber layer thickness), IRNFL (inferior peri-papillary retinal nerve fiber layer thickness), NRNFL (nasal peri-papillary retinal nerve fiber layer thickness), TRNFL (temporal peri-papillary retinal nerve fiber layer thickness), Average GCC (average ganglion cell complex thickness), SGCC (superior ganglion cell complex thickness), IGCC (inferior ganglion cell complex thickness), SDVD (superior disc vessel density), IDVD (inferior disc vessel density), NDVD (nasal disc vessel density), TDVD (temporal disc vessel density), PARP1 (Poly(ADP-ribose) Polymerase-1).

Supplementary 2: Bivariate correlation between PARP 1 levels and other parameters in both groups

PARP-1 with the following parameter	Ms with optic neuritis		Ms without optic neuritis	
	(r)	P	(r)	P
CM thickness	-.465	.002	-.065	.690
TMV	-.420	.007	.143	.380
Average GCC	.443	.004	.269	.094
TDVD	-.428	.006	-.081-	0.6
BCVA	-0.414	0.008	-0.17	0.27

CMT (central macular thickness), TMV (total macular volume), Average GCC (ganglion cell complex), TDVD (temporal disc vessel density), BCVA (best corrected visual acuity)

Supplementary 3: Comparison between the studied group regarding PARP 1 levels

	MS (ON+) N=40		MS (ON-) N=40		Control N=40		P value
	Mean	SD	Mean	SD	Mean	SD	
PARP1	.53	.18	.44	.14	.30	.05	<0.0009

*p-value was calculated by one-way ANOVA test