

Table S1. Morphometric analysis of the chiasm. Summary of morphometric assessment of the optic nerve and tract for each study population. The diameter of nerves (measured in mm) entering and leaving the chiasm was estimated by evaluation of volumetric T1-weighted images, as described in the text. Mean values of patient and healthy control groups were compared using the Student t-test.

	LHON		HC		Comparison
Position	m	sd	m	sd	p(<i>t</i>)
Right anterior	4.38	0.46	4.18	0.55	0.37
Left anterior	4.49	0.46	4.40	0.52	0.65
Right posterior	3.96	0.24	3.68	0.43	0.08
Left posterior	3.99	0.26	3.92	0.63	0.78

Note: HC: healthy control group. m: mean. s.d.: standard deviation. p(*t*): p-value of intergroup comparison

Table S2. Correlation between diffusion parameters and clinical/ophthalmological evaluation of patients within optic tract and optic nerve.

Optic tract		FA	nGM	nWM
Age (HC)	Pearson's r	-0.356	0.081	-0.238
	<i>p-value</i>	0.074	0.693	0.242
Age	Pearson's r	-0.113	0.681 **	-0.812 ***
	<i>p-value</i>	0.677	0.004	<0.001
Disease duration	Pearson's r	0.328	0.028	-0.251
	<i>p-value</i>	0.215	0.919	0.348
Visual acuity	Pearson's r	-0.146	-0.164	0.363
	<i>p-value</i>	0.589	0.544	0.167
Average RNFL	Pearson's r	-0.209	-0.097	0.186
	<i>p-value</i>	0.438	0.721	0.490
Optic nerve		FA	nGM	nWM
Age (HC)	Pearson's r	-0.142	0.51 **	0.343
	<i>p-value</i>	0.49	0.008	0.086
Age	Pearson's r	0.156	0.517 *	0.134
	<i>p-value</i>	0.563	0.04	0.62
Disease duration	Pearson's r	-0.089	-0.229	0.207
	<i>p-value</i>	0.744	0.395	0.443
Visual acuity	Pearson's r	-0.376	-0.281	0.569 *
	<i>p-value</i>	0.151	0.291	0.021
Average RNFL	Pearson's r	0.449	0.299	-0.576 *
	<i>p-value</i>	0.081	0.261	0.02

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

FA: fractional anisotropy. nGM: normalized fraction of 'grey matter'-like signal. nGM: normalized fraction of 'white matter'-like signal. HC: healthy control group.