The appendix contains four tables concerning demographic and clinical characteristics of participants, all MR sequence parameters, and calculated diffusion tensor imaging (DTI)-based and generalized q-sampling imaging (GQI)-based metrics in the whole-brain fiber tracts and corpus callosum bundles using DSI studio. The list and content of supplemental materials related to our study are as follows:

(I) The demographic and clinical characteristics of the subjects in this study are listed in *Table S1*.
(II) The parameters of the sequences used for MR diffusion and complementary MR techniques are listed in *Table S2*.
(III) DTI-based metrics of the groups (controls, asymptomatic, and symptomatic patients) are provided in *Table S3*.
(IV) GQI-based metrics of the groups (controls, asymptomatic, and symptomatic patients) are provided in *Table S4*.

Table S1 Demographic and clinical characteristics of the subjects

	Controls, n=28				Asymptomatic (Cov+), n=25				Symptomatic (Cov+), n=41		
Subj.	Age (years)	Sex (F/M)	Hyperintense lesions	Subj.	Age (years)	Sex (F/M)	Hyperintense lesions	Subj.	Age (years)	Sex (F/M)	Hyperintense lesions
C1	18	0	0	A1	19	0	0	S1	18	0	0
C2	22	1	0	A2	25	1	0	S2	24	0	0
C3	23	1	0	A3	29	1	0	S3	25	0	0
C4	24	0	0	A4	30	0	0	S4	27	0	0
C5	26	0	0	A5	34	1	0	S5	28	1	0
C6	28	1	0	A6	39	1	0	S6	29	0	4
C7	30	1	0	A7	37	0	0	S7	30	0	2
C8	30	1	0	A8	39	1	15	S8	30	0	0
C9	32	1	0	A9	36	0	0	S9	30	0	0
C10	36	0	0	A10	42	0	0	S10	33	0	1
C11	37	1	0	A11	42	1	0	S11	34	1	11
C12	38	0	0	A12	43	0	27	S12	35	1	1
C13	39	1	0	A13	46	1	0	S13	36	1	0
C14	41	0	0	A14	46	0	0	S14	41	1	21
C15	42	1	0	A15	47	0	0	S15	43	0	11
C16	44	0	0	A16	47	0	7	S16	44	0	9
C17	45	0	0	A17	48	1	6	S17	44	0	9
C18	45	1	0	A18	49	0	0	S18	45	0	8
C19	45	1	0	A19	51	1	16	S19	45	0	57
C20	46	0	0	A20	51	0	11	S20	45	1	27
C21	47	0	0	A21	53	0	25	S21	46	0	2
C22	48	1	0	A22	54	0	62	S22	47	0	0
C23	49	0	18	A23	62	1	10	S23	47	0	0
C24	54	1	0	A24	60	0	0	S24	48	0	7
C25	55	1	11	A25	66	1	6	S25	48	1	11
C26	57	0	37					S26	48	0	0
C27	58	1	0					S27	49	0	4
C28	66	0	40					S28	49	0	17
								S29	50	0	3
								S30	51	1	2
								S31	52	0	11
								S32	53	0	15
								S33	54	1	2
								S34	55	0	29
								S35	56	0	4
								S36	57	0	85
								S37	58	0	
								S38	60	0	1
								S39	63	0	10
								S40	68	0	13
								S41	69	0	80

C, control subjects; A, asymptomatic patients; S, symptomatic patients; Sex, female (F=0), male (M=1); hyperintense lesions, number of lesions on FLAIR images; FLAIR, fluid-attenuated inversion recovery.

Table S2 The sequence parameters employed for MR diffusion and complementary MR techniques

Parameters	ss-EPI DWI	ASL	FLAIR	SWI	MPRAGE	MRA
Repetition time (ms)	4,900	4,300	6,000	28	2,000	19
Echo time (ms)	134	13.4	349	20	2.25	3.5
Inversion time (ms)	NA	800	1900	NA	900	NA
b-values (s/mm^2)	0–4,000	NA	NA	NA	NA	NA
Slice thickness (mm)	2	4	0.9	1	0.9	0.5
Orientation	tra	tra	sag	tra	sag	tra
No. slices	72	24	208	112	224	48
Acquisition matrix (mm^2)	96×120	60×64	206×224	286×384	256×256	241×256
Bandwidth (Hz/Px)	1,736	3,256	698	120	210	199
PAT factor (GRAPPA, SMS)	4	2	4	2	3	2
Field of view (mm)	240	220	208	220	230	180
Labeling duration (ms)	NA	1800	NA	NA	NA	NA
Postllabeling duration	NA	1800	NA	NA	NA	NA
Total scan time (min)	10:37	7:29	6:02	5:44	3:34	5:06

MR, magnetic resonance; ss-EPI DWI, single-shot echo-planar imaging diffusion-weighted imaging; ASL, arterial spin labeling; FLAIR, fluid attenuated inversion recovery; SWI, susceptibility-weighted imaging; MPRAGE, magnetization prepared rapid gradient echo single-shot echo-planar imaging sequence; MRA, magnetic resonance angiography; tra, transversal; sag, sagittal; PAT, parallel acquisition technique; GRAPPA, generalized autocalibrating partial parallel acquisition; SMS; simultaneous multislice imaging technique (acceleration mode); NA, not applicable.

Table S3 DTI-based metrics of the groups (controls, asymptomatic, and symptomatic patients)

DTI-based metrics (mean ± SD)	F. minor	Body	Tapetum	F. major	WB
Healthy controls, n=28					
FA	0.473±0.029	0.469±0.032	0.514±0.390	0.522±0.033	0.403±0.022
MD	0.794±0.042	0.799±0.05	1.080±0229	0.873±0.059	0.933±0.053
AD	1.219±0.043	1.211±0.047	1.692±0.294	1.418±0.067	1.344±0.07
RD	0.581±0.047	0.593±0.057	0.774±0.199	0.601±0.062	0.727±0.049
Asymptomatic patients (Cov+), n=25					
FA	0.458±0.034	0.467±0.028	0.504±0.047	0.500±0.030	0.392±0.027
MD	0.812±0.041	0.813±0.058	1.028±0.162	0.890±0.061	0.946±0.047
AD	1.227±0.053	1.229±0.071	1.605±0.199	1.415±0.085	1.348±0.071
RD	0.604±0.046	0.605±0.058	0.74±0.152	0.627±0.058	0.744±0.042
Symptomatic patients (Cov+), n=41					
FA	0.453±0.026	0.459±0.027	0.511±0.040	0.506±0.038	0.394±0.018
MD	0.837±0.058	0.840±0.061	1.056±0.196	0.887±0.052	0.960±0.045
AD	1.257±0.061	1.256±0.066	1.653±0.250	1.416±0.077	1.372±0.053
RD	0.627±0.060	0.632±0.062	0.757±0.173	0.622±0.054	0.755±0.044

The results of calculated DTI-based metrics (FA, MD, AD, and RD) in the corpus callosum and WB fibers are presented as mean ± SD. MD, AD, and RD are expressed in units of mm^2/s ×10^{-3}. DTI, diffusion tensor imaging; SD, standard deviation; F. minor, forceps minor; F. major, forceps major of the corpus callosum; WB, whole brain; FA, fractional anisotropy; MD, mean diffusivity; AD, axial diffusivity; RD, radial diffusivity.

Table S4 GQI-based metrics of the groups (controls, asymptomatic, and symptomatic patients)

GQI-based metrics (mean ± SD)	F. minor	Body	Tapetum	F. major	WB
Healthy controls, n=28					
QA	0.202±0.025	0.264±0.032	0.309±0.037	0.339±0.036	0.207±0.016
ISO	0.435±0.054	0.501±0.049	0.606±0.082	0.581±0.067	0.568±0.062
RDI	0.328±0.039	0.388±0.037	0.436±0.051	0.444±0.046	0.408±0.041
Asymptomatic patients (Cov+), n=25					
QA	0.197±0.022	0.278±0.029	0.306±0.036	0.341±0.032	0.206±0.016
ISO	0.445±0.062	0.523±0.063	0.618±0.095	0.599±0.074	0.58±0.066
RDI	0.332±0.041	0.404±0.046	0.445±0.056	0.454±0.051	0.414±0.044
Symptomatic patients (Cov+), n=41					
QA	0.187±0.028	0.258±0.042	0.304±0.044	0.327±0.045	0.194±0.019
ISO	0.436±0.070	0.508±0.075	0.614±0.112	0.581±0.072	0.557±0.069
RDI	0.323±0.047	0.390±0.054	0.440±0.063	0.443±0.052	0.398±0.046

The results of calculated GQI-based metrics (QA, ISO, and RDI) in the CC and WB fibers are listed with their SD. GQI, generalized q-sampling imaging; SD, standard deviations; F. minor, forceps minor; F. major, forceps major of the CC; WB, whole brain; QA, quantitative anisotropy; ISO, isotropy; RDI, restricted diffusion imaging; CC, corpus callosum.