On-line Table 1: Scanner types and imaging parameters[a]

	NMOSD	MS
Brain MR imaging		
Scanner type		
1.5T	54 (68.4)	42 (48.3)
3T	25 (31.6)	45 (51.7)
Manufacturer		
Toshiba[b]	13 (16.5)	3 (3.4)
Siemens[c]	22 (27.8)	21 (24.1)
GE[d]	22 (27.8)	29 (33.3)
Philips[e]	22 (27.8)	34 (39.1)
T2-weighted axial image		
Slice thickness (mm)[f]	5.2 ± 0.7	5.1 ± 0.7
Sequence parameters (FSE)		
TR[g]	2770–6014	3500–6220
TE[g]	78–110	80–110
ETL[g]	7–27	6–20
Spinal cord MR imaging		
Scanner type		
1.5T	56 (82.4)	53 (79.1)
3T	12 (17.6)	14 (20.9)
Manufacturer		
Toshiba	8 (11.8)	9 (13.4)
Siemens	26 (38.2)	22 (32.8)
GE	20 (29.4)	20 (29.9)
Philips	14 (20.6)	16 (23.9)
T2-weighted sagittal image		
Slice thickness (mm)[f]	3.6 ± 0.5	3.7 ± 0.7
Sequence parameters (FSE)		
TR[g]	2000–5000	2200–5179
TE[g]	85–131	81–131
ETL[g]	4–55	11–55
Optic nerve MR imaging		
Scanner type		
1.5T	29 (69)	8 (57.1)
3T	13 (31)	6 (42.9)
Manufacturer		
Toshiba	2 (4.8)	1 (7.1)
Siemens	15 (35.7)	8 (57.1)
GE	14 (33.3)	5 (35.7)
Philips	11 (26.2)	0 (0)
Orbital coronal image		
Slice thickness (mm)[f]	3.7 ± 0.9	3.8 ± 0.7
Sequence		
STIR image	31 (73.8)	8 (57.1)
FLAIR image	7 (16.7)	2 (14.3)
T2-weighted image	4 (9.5)	4 (28.6)

Note:—ETL indicates echo-train length.

[a] Unless otherwise indicated, data in parentheses are percentages.

[b] Toshiba Medical Systems, Tokyo, Japan.

[c] Erlangen, Germany.

[d] GE Healthcare, Milwaukee, Wisconsin.

[e] Philips Healthcare, Best, the Netherlands.

[f] Data are mean ± SD.

[g] Data are range.

On-line Table 2: Summary of available MR imaging sequences for each analysis

Summary
For brain analysis
Quantitative analyses
Counting the number of lesions, measuring the maximum diameter, and identifying the location
Axial T2-weighted FSE images
Evaluation of the morphologic features and signs
T2-weighted FSE images (along with FLAIR and/or T1-weighted images with/without gadolinium enhancement if these imaging examinations were performed)
For spinal cord analysis
Quantitative analyses
Counting the number of lesions
Sagittal T2-weighted FSE images and axial T2-weighted FSE or gradient-echo images
Measuring the longitudinal length and identifying the spinal cord distribution
Sagittal T2-weighted FSE images
Measuring the transverse maximum diameter and identifying the intramedullary location
Axial T2-weighted FSE or gradient-echo images
Evaluation of the morphologic features
Sagittal T2-weighted FSE images and axial T2-weighted FSE or gradient-echo images
For optic nerve analysis
Identifying the location and evaluation of the morphologic features
Orbital coronal STIR, FLAIR, or T2-weighted images

On-line Table 3: Number and size of brain lesions for rater 2[a]

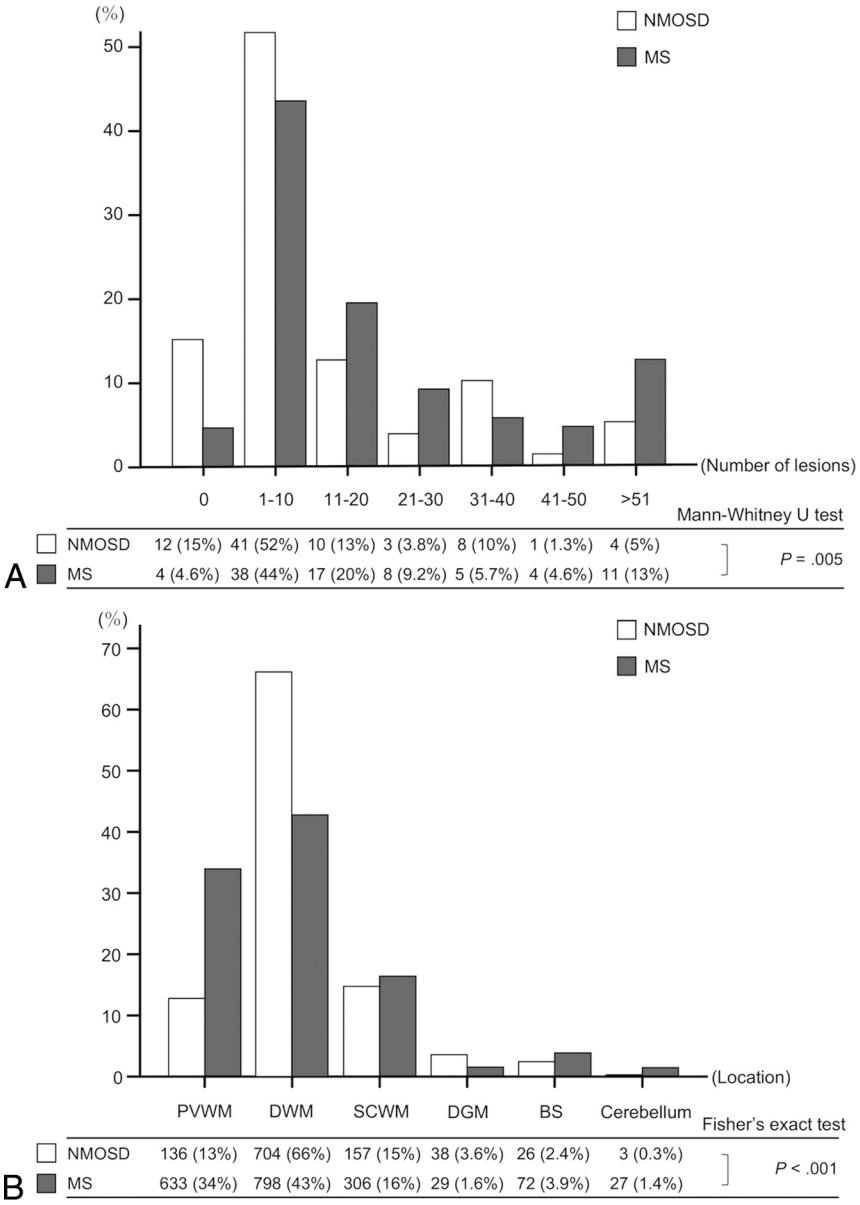
Quantitative Analyses	NMOSD (*n* = 79)	MS (*n* = 87)	*P* Value[b]
Total No. of lesions	1064	1869	
Per patient	5 (1–17, 0–129)	12 (4–28, 0–123)	.002
Diameter (mm)	4.7 (3.7–6.6, 3.0–50)	5.4 (4.1–7.4, 3.0–50)	<.001
In each region (mm)			
PVWM	6.2 (4.3–8.4, 3.0–35)	6.2 (4.8–8.5, 3.0–50)	.32
DWM	4.5 (3.6–6.0, 3.0–23)	4.9 (3.8–6.5, 3.0–24)	.001
SCWM	4.5 (3.6–6.7, 3.0–31)	5.2 (4.0–6.9, 3.0–28)	.012
DGM	5.7 (3.7–8.0, 3.0–50)	5.3 (4.3–6.6, 3.0–17)	.59
BS	5.8 (4.6–7.2, 3.0–21)	5.4 (4.4–7.1, 3.2–16)	.68
Cerebellum	5.3 (5.1–8.0, 5.1–8.0)	5.6 (4.0–8.0, 3.0–20)	.84

[a] Data are medians, with interquartile range, and total range in parentheses.
[b] Mann-Whitney *U* test.

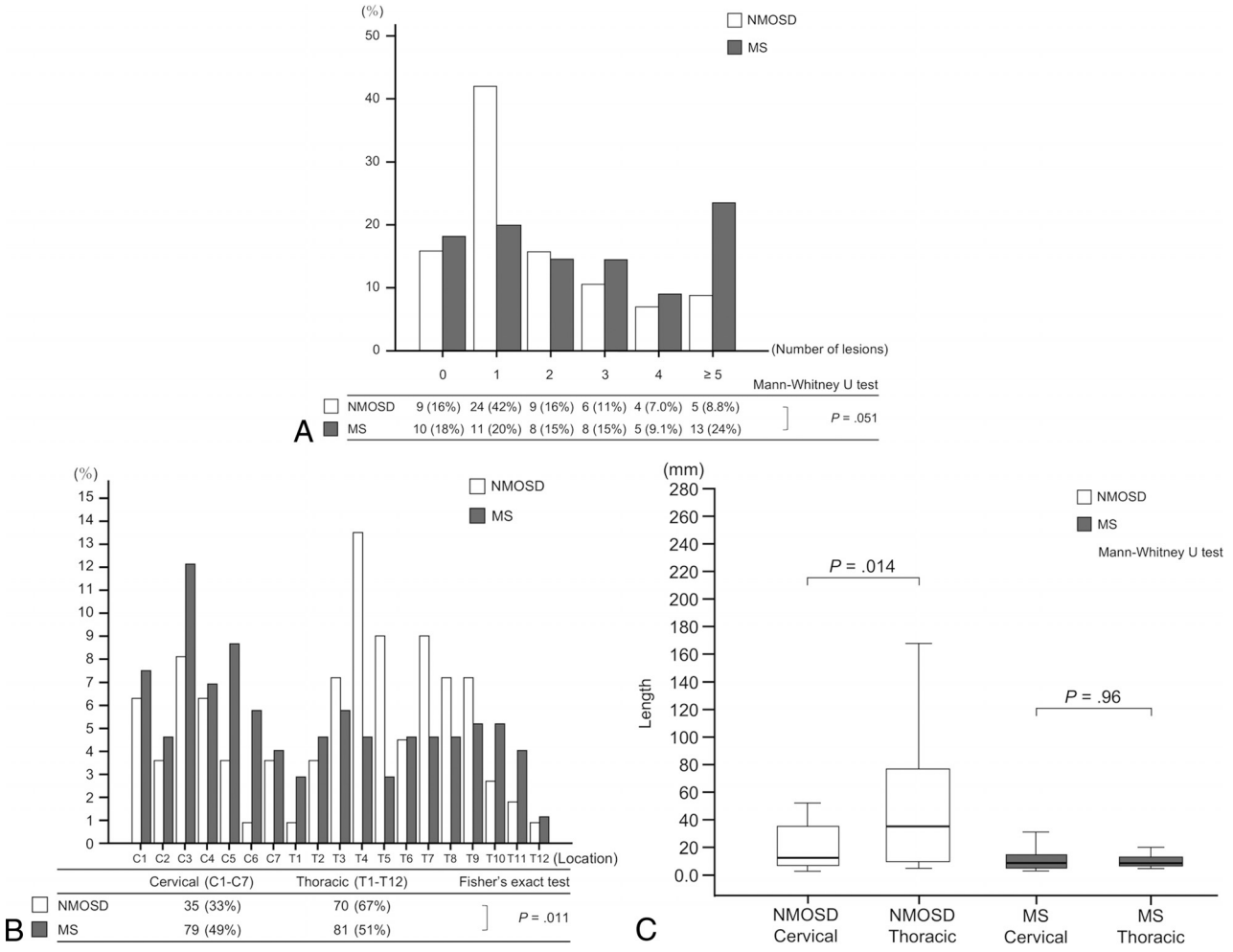
On-line Table 4: Number, size, and location of spinal cord lesions for rater 2[a]

Quantitative Analyses	NMOSD (*n* = 57)	MS (*n* = 55)	*P* Value[c]
Total No. of lesions	105	160	
Per patient	1 (1–3, 0–7)	2 (1–4, 0–9)	.042
Longitudinal length (mm)	26 (9.0–69, 2.0–460)	10 (6.9–15, 2.2–109)	<.001
In cervical region (mm)	15 (8.0–37, 2.0–147)	10 (6.0–16, 2.2–70)	.009
In thoracic region (mm)	38 (10–78, 3.9–460)	9.0 (7.3–14, 3.4–109)	<.001
Transverse diameter (mm)	3.7 (2.6–5.6, 1.3–14)	4.0 (3.0–5.0, 1.3–10)	.72
In cervical region (mm)	4.6 (2.3–7.2, 1.5–14)	4.7 (3.4–6.1, 1.3–10)	.83
In thoracic region (mm)	3.5 (2.6–5.1, 1.3–9.1)	3.3 (2.7–4.3, 1.3–8.9)	.34
Intramedullary location[b]			
Central	65 (61.9)	68 (42.5)	.001[d]
Peripheral	18 (17.1)	59 (36.9)	
Both	22 (21)	33 (20.6)	

[a] Unless otherwise indicated, data are medians, with interquartile range and total range in parentheses.
[b] Data in parentheses are percentages.
[c] Mann-Whitney *U* test.
[d] Fisher exact test.



ON-LINE FIG 1. Bar graphs show the proportion of patients classified by the number of lesions in bins of 10 lesions (*A*) and the distribution of brain lesions categorized by location (PVWM, DWM, SCWM, DGM, BS, cerebellum) (*B*) for rater 2. A total of 1064 brain lesions in 79 patients with NMOSD and 1869 brain lesions in 87 patients with MS are identified. *A*, The proportion of patients is significantly different between NMOSD and MS ($P = .005$). More patients with NMOSD have no brain lesions of ≥3 mm, and a tendency for patients with MS to have more brain lesions than those with NMOSD is found. *B*, The distribution of lesions categorized by location is significantly different between NMOSD and MS ($P < .001$). DWM lesions (66%) are more frequent than PVWM lesions (13%) in NMOSD, whereas the difference in the frequencies of lesions in PVWM (34%) and DWM (43%) is small in MS.



ON-LINE FIG 2. Graphs show the proportion of patients classified according to the number of spinal cord lesions (*A*), the distribution and proportion of spinal cord lesions (*B*), and the length of spinal cord lesions in each location (*C*) for rater 2. A total of 105 spinal cord lesions in 57 patients with NMOSD and 160 spinal cord lesions in 55 patients with MS are identified. *A*, No significant difference is found in the number of lesions between NMOSD and MS ($P = .051$). Forty-eight (84%) patients with NMOSD and 45 (82%) patients with MS have ≥1 spinal cord lesion. *B*, Bimodal distributions of lesions are present in both NMOSD and MS, but the peak of the distribution in NMOSD is high in thoracic regions, whereas the variation and peaks of the distribution are relatively smaller in MS than in NMOSD. The proportion of lesions categorized into cervical or thoracic regions is significantly different between NMOSD and MS ($P = .011$). More thoracic lesions (67%) than cervical lesions (33%) are present in NMOSD, whereas the difference in the frequencies of cervical (49%) and thoracic lesions (51%) is small in MS. *C*, In NMOSD, thoracic lesions are significantly longer than cervical lesions ($P = .014$), whereas in MS, the length is not significantly different between cervical and thoracic lesions ($P = .96$).