

On-line Table: MS and NMO: discriminating radiologic features

	NMO	MS
Conventional spine MRI		
Lesion length ^{12,46}	≥3 Vertebral segments	<3 Vertebral segments (may coalesce)
TI hypointensity ^{16,18}	Frequent	Rare
Central gray matter involvement ¹⁶	Frequent	Occasional
Optic pathway MRI		
Optic chiasm inflammation ^{29,31}	Frequent	Occasional
Simultaneous bilateral optic neuritis ³⁰	Occasional	Rare
Conventional brain MRI		
Normal initial brain MR findings ^{2,12}	Frequent	Rare
Lesion distribution ^{8,9,30,32-35,38,41,46}	Frequent: nonspecific deep white matter; occasional: periependymal (dorsal brain stem, periaqueductal, diencephalon, around lateral ventricles); confluent hemispheric; longitudinally extensive corticospinal tract	Periventricular, subcortical, juxtacortical, cortical posterior fossa
Corpus callosum lesions ^{34,47}	Occasional (≤18.2%); acute phase: multiple, round and edematous, diffuse splenial involvement	Very common: small, discrete or linear and in the lower margin of the corpus callosum or callososeptal interface; nonedematous
Enhancement pattern ^{8,52-54}	Cloud-like, “pencil-thin” ependymal, thick periventricular, rarely solid	Incomplete or complete ring, solid
Nonconventional brain MRI		
Cortical lesions (DIR, 7T MRI) ^{55,58}	Rare, possibly never	Very frequent
Gray matter atrophy ^{56,58,65,70}	Regional, predominantly visual and motor cortices	Diffuse cortex and deep gray matter
Normal-appearing gray matter MT imaging ^{56,57}	Discrepant results, possibly reduced mean MT ratio	Reduced MT ratio
Normal-appearing white matter DTI ^{56,59-61} MRS ^{56,62,63}	Subtle alterations, predominantly optic radiation Normal	Diffusely abnormal Abnormal
Nonconventional spinal MRI		
Cervical cord MT ratio ¹⁷	Reduced mean MT ratio vs controls, not vs MS	Reduced mean MT ratio
Cervical cord DTI		
Lesional ⁷⁵	Increased radial diffusivity vs controls and vs MS	Increased radial diffusivity vs controls
Nonlesional ^{73,74}	Reduced fractional anisotropy	Reduced fractional anisotropy

Note:—DIR indicates double inversion recovery.