CLINICAL/SCIENTIFIC NOTES OPEN ACCESS

Multifocal nodular hypertrophy of trigeminal nerve in multifocal acquired demyelinating sensory and motor neuropathy

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Video

A 60-year-old woman presented with asymmetric distal limb weakness and muscle atrophy. Electrophysiologic study revealed demyelinating polyneuropathy, and she was diagnosed with multifocal acquired demyelinating sensory and motor (MADSAM) neuropathy as a subtype of chronic inflammatory demyelinating polyneuropathy (CIDP) based on the established diagnostic criteria.[1] Anti-neurofascin155 antibody was negative. Cervical and lumbosacral nerve roots showed asymmetric multifocal hypertrophy (figure 1), which were distinct from those in typical CIDP.[2] Brain MRI revealed multifocal nodular hypertrophy of trigeminal nerves (figure 2 and video 1). These hypertrophic patterns in trigeminal nerves as well as nerve roots might be characteristics of MADSAM neuropathy.

Author contributions

M. Kuwahara has contributed to the acquisition, analysis, and interpretation of data and drafted the article. I. Numoto has analyzed and interpreted data. S. Kusunoki has made substantial contributions to the conception and design of the study and also revised the paper critically for important intellectual content. S. Kusunoki provided the final approval to the paper.

Study funding

No targeted finding reported.

Disclosure

M. Kuwahara received speaker honoraria from Teijin, Nihon, and Japan Blood Products Organization. I. Numoto reports no disclosures. S. Kusunoki received speaker honoraria from Teijin, Nihon, Japan Blood Products Organization, Biogen, Novartis, Dainippon Sumitomo, Kyowa Kirin, Ono Pharma, Pfizer, Alexion, and Chugai; served on the editorial board for *Journal of Neuroimmunology*, *Neurology*; served as Editor-in-Chief for *Neurology and Clinical Neuroscience*; received research support from Novartis, Dainippon Sumitomo, Sanofi, Japan Blood Products Organization, Ohtsuka, Kyowa Kirin, Daiichi Sankyo, Eisai, Takeda, and Nihon; received research support from Ministry of Education, Culture, Sports, Science and Technology of Japan and Japan Agency for Medical Research and Development. Disclosures available: Neurology.org/NN.

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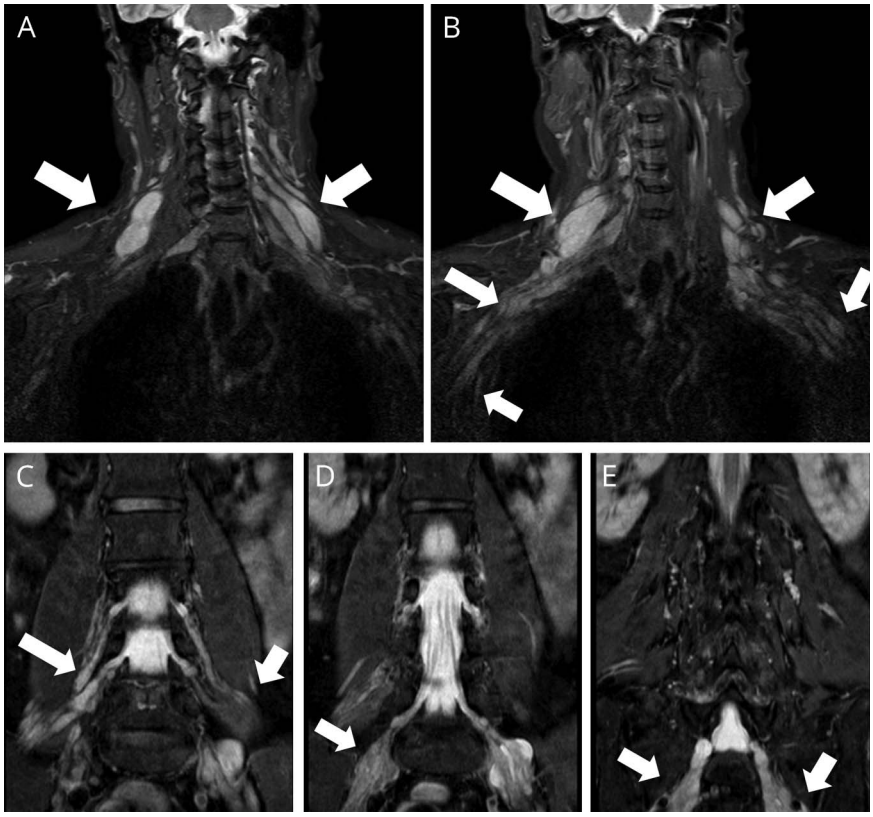
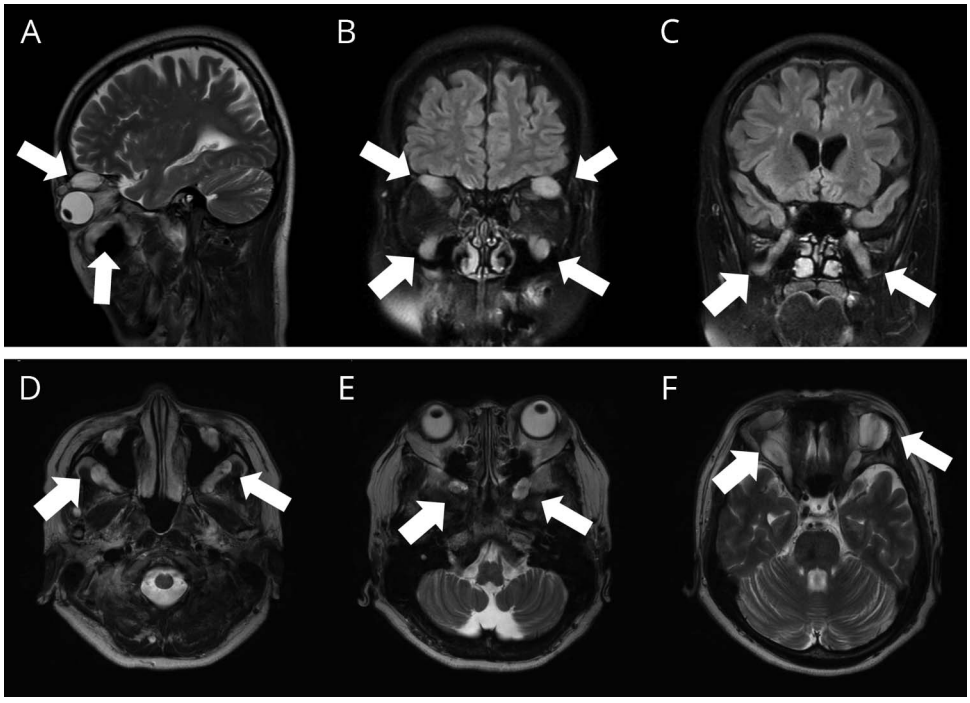
Figure 1 Cervical and lumbosacral nerve roots hypertrophy



(A and B) Coronal cervical STIR MRI; (C–E), coronal lumbar STIR MRI. STIR = short tau inversion recovery.

Figure 2 Trigeminal nerves hypertrophy



(A) Sagittal T2-weighted MRI; (B and C) coronal fluid-attenuated inversion recovery MRI; (D–F) axial T2-weighted MRI.