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

Motoi Kuwahara, MD, PhD, Isao Numoto, MD, and Susumu Kusunoki, MD, PhD

Neurol Neuroimmunol Neuroinflamm 2019;6:e553. doi:10.1212/NXI.0000000000000553

Correspondence

Dr. Kusunoki
kusunoki-ty@umin.ac.jp

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.

MORE ONLINE

► Video

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, Daiippon 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, Daiippon 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.

Publication history

Received by *Neurology: Neuroimmunology & Neuroinflammation* January 4, 2019. Accepted in final form January 28, 2019.

References

1. Joint Task Force of the EFNS and the PNS. European Federation of Neurological Societies/Peripheral Nerve Society Guideline on management of chronic inflammatory demyelinating polyradiculoneuropathy; report of a Joint Task Force of the European Federation of Neurological Societies and the Peripheral Nerve Society. *J Peripher Nerv Syst* 2010;15:1–9.
2. Shibuya K, Sugiyama A, Ito S, et al. Reconstruction magnetic resonance neurography in chronic inflammatory demyelinating polyneuropathy. *Ann Neurol* 2015;77:333–337.

From the Department of Neurology (M.K., S.K.) and Department of Radiology (I.N.), Kindai University Faculty of Medicine, Osaka, Japan.

Go to Neurology.org/NN for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

The Article Processing Charge was funded by the authors.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License 4.0 (CC BY-NC-ND), which permits downloading and sharing the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

Figure 1 Cervical and lumbosacral nerve roots hypertrophy

Figure 2 Trigeminal nerves hypertrophy

Neurology[®] Neuroimmunology & Neuroinflammation

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

Motoi Kuwahara, Isao Numoto and Susumu Kusunoki

Neurol Neuroimmunol Neuroinflamm 2019;6;

DOI 10.1212/NXI.0000000000000553

This information is current as of April 1, 2019

Updated Information & Services	including high resolution figures, can be found at: http://nn.neurology.org/content/6/3/e553.full.html
References	This article cites 2 articles, 0 of which you can access for free at: http://nn.neurology.org/content/6/3/e553.full.html##ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): Chronic inflammatory demyelinating polyneuropathy http://nn.neurology.org/cgi/collection/chronic_inflammatory_demyelinating_polyneuropathy MRI http://nn.neurology.org/cgi/collection/mri
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://nn.neurology.org/misc/about.xhtml#permissions
Reprints	Information about ordering reprints can be found online: http://nn.neurology.org/misc/addir.xhtml#reprintsus

Neurol Neuroimmunol Neuroinflamm is an official journal of the American Academy of Neurology. Published since April 2014, it is an open-access, online-only, continuous publication journal. Copyright Copyright © 2019 The Author(s). Published by Wolters Kluwer Health, Inc. on behalf of the American Academy of Neurology.. All rights reserved. Online ISSN: 2332-7812.