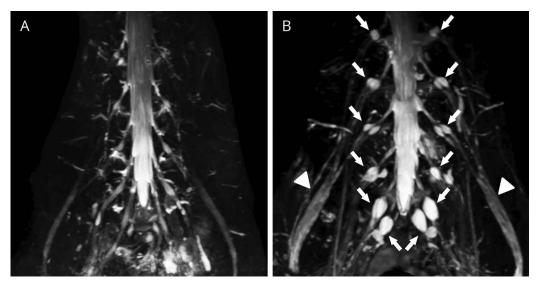
Teaching NeuroImages: Morphology of lumbosacral dorsal root ganglia and plexus in hereditary transthyretin amyloidosis

Teruaki Masuda, MD, PhD, Mitsuharu Ueda, MD, PhD, Mika Kitajima, MD, PhD, Kosuke Morita, PhD, Yohei Misumi, MD, PhD, Taro Yamashita, MD, PhD, Konen Obayashi, MD, PhD, Yasuyuki Yamashita, MD, PhD, and Yukio Ando, MD, PhD

Correspondence
Dr. Ueda
mitt@rb3.so-net.ne.jp

Neurology® 2018;91:e1834-e1835. doi:10.1212/WNL.000000000006474

Figure 3D magnetic resonance neurography (3D-MRN) study of lumbosacral nerves



3D-MRN with reconstruction of fat-suppressed T2-weighted images. (A) Healthy volunteer. (B) Patient with the V30M mutation of ATTRm. Dorsal root ganglia: arrows. Lumbosacral plexus: arrowheads.

A 66-year-old man presented with a 5-year history of progressive distal dominant sensorimotor disturbance, which suggested length-dependent polyneuropathy. 3D magnetic resonance neurography (3D-MRN) showed enlargement of the dorsal root ganglia and the lumbosacral plexus (figure). The diagnosis of hereditary transthyretin (ATTRm) amyloidosis was based on genetic and histopathologic findings.

ATTRm amyloidosis commonly causes length-dependent neuropathy with enlargement of the sciatic nerve during the early disease stage. Histopathologically, amyloid deposits occur mainly in the dorsal root ganglia and proximal region of the sciatic nerve. 3D-MRN may detect nerve injury associated with amyloid deposits, which leads to early diagnosis of the disease.

MORE ONLINE

→Teaching slides
links.lww.com/WNL/A728

From the Departments of Neurology (T.M., M.U., Y.M., T.Y., Y.A.) and Diagnostic Radiology (M.K., Y.Y.), Graduate School of Medical Sciences, Kumamoto University; Department of Radiology (K.M.), Kumamoto University Hospital; and Department of Morphological and Physiological Sciences (K.O.), Graduate School of Health Sciences, Kumamoto University,

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

Author contributions

Dr. Masuda: study concept, study design, acquisition of data, data analysis, drafting of the manuscript. Dr. Ueda: study concept, study design, acquisition of data, data analysis, critical revision of the manuscript for intellectual content, study supervision. Dr. Misumi, Dr. Yamashita, Dr. Obayashi: critical revision of the manuscript for intellectual content. Dr. Morita, Dr. Kitajima, Dr. Yamashita: MRI acquisition, critical revision of the manuscript for intellectual content. Dr. Ando: study concept, study design, critical revision of the manuscript for intellectual content, study supervision.

Study funding

No targeted funding reported.

Disclosure

The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

References

- Kollmer J, Hund E, Hornung B, et al. In vivo detection of nerve injury in familial amyloid polyneuropathy by magnetic resonance neurography. Brain 2015;3:549–562.
- Misu K, Hattori N, Nagamatsu M, et al. Late-onset familial amyloid polyneuropathy type I (transthyretin Met30-associated familial amyloid polyneuropathy) unrelated to endemic focus in Japan: clinicopathological and genetic features. Brain 1999; 122:1951–1962.



Teaching NeuroImages: Morphology of lumbosacral dorsal root ganglia and plexus in hereditary transthyretin amyloidosis

Teruaki Masuda, Mitsuharu Ueda, Mika Kitajima, et al. Neurology 2018;91;e1834-e1835 DOI 10.1212/WNL.0000000000006474

This information is current as of November 5, 2018

Updated Information & including high resolution figures, can be found at: **Services** http://n.neurology.org/content/91/19/e1834.full

References This article cites 2 articles, 0 of which you can access for free at:

http://n.neurology.org/content/91/19/e1834.full#ref-list-1

Subspecialty Collections This article, along with others on similar topics, appears in the

following collection(s): **All Clinical Neurology**

http://n.neurology.org/cgi/collection/all_clinical_neurology

All Medical/Systemic disease

http://n.neurology.org/cgi/collection/all_medical_systemic_disease

Peripheral neuropathy

http://n.neurology.org/cgi/collection/peripheral_neuropathy

Permissions & Licensing Information about reproducing this article in parts (figures, tables) or in

its entirety can be found online at:

 $http://www.neurology.org/about/about_the_journal\#permissions$

Reprints Information about ordering reprints can be found online:

http://n.neurology.org/subscribers/advertise

Neurology ® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2018 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

