Anterior cerebral artery dissection diagnosed using high-resolution MRI

Figure Angiographic and high-resolution MRI of anterior cerebral artery dissection

Diffusion-weighted imaging (A) shows left anterior cerebral artery infarcts. Magnetic resonance (B) and percutaneous (C) angiographies show a long stenosis (white arrows) of left A2 segment. High-resolution MRI (fat suppression) of A2 segment (D, E) reveals the high signals (black arrow) of intramural hematoma indicating the diagnosis of dissection.

A 51-year-old man was admitted due to weakness (3/5) of the right lower extremity. Brain MRI revealed acute infarcts in the left anterior cerebral artery (ACA) territory (figure, A). Angiographic images demonstrated a stenotic lesion in the left A2 segment (figure, B and C), which high-resolution MRI revealed as a dissection (figure, D and E). Although extensive assessments were conducted, underlying arteriopathy was not found. Arterial dissection is a frequent cause of ACA infarcts (43%),¹ and its diagnosis depends on angiographic examinations. Our case showed that high-resolution MRI might be a useful tool for diagnosis of ACA dissections that present without typical angiographic features.

Hongbing Chen, MD, Zhuhao Li, MSc, Boning Luo, MD, Jinsheng Zeng, MD

From the Departments of Neurology and Stroke Center (H.C., J.Z.) and Radiology (Z.L., B.L.), The First Affiliated Hospital, Sun Yat-Sen University, Guangzhou, China.

Author contributions: H. Chen and J. Zeng: study concept and design, acquisition and interpretation of data, writing of draft manuscript. Z. Li and B. Luo: design, acquisition and interpretation of data, discussion of case, revision of draft manuscript.

Study funding: No targeted funding reported.

Disclosure: The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

Correspondence to Dr. Zeng: zengjs@pub.guangzhou.gd.cn

1. Sato S, Toyoda K, Matsuoka H, et al. Isolated anterior cerebral artery territory infarction: dissection as an etiological mechanism. *Cerebrovasc Dis* 2010;29:170–177.

Neurology®

Anterior cerebral artery dissection diagnosed using high-resolution MRI

Hongbing Chen, Zhuhao Li, Boning Luo, et al.

Neurology 2015;85;481

DOI 10.1212/WNL.0000000000001813

This information is current as of August 3, 2015

Updated Information & Services

including high resolution figures, can be found at:
<http://n.neurology.org/content/85/5/481.full>

References

This article cites 1 articles, 0 of which you can access for free at:
<http://n.neurology.org/content/85/5/481.full#ref-list-1>

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):

All Cerebrovascular disease/Stroke

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

Infarction

<http://n.neurology.org/cgi/collection/infarction>

MRI

<http://n.neurology.org/cgi/collection/mri>

Other cerebrovascular disease/ Stroke

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

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 © 2015 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.