Reversible visual memory in transient splenial lesion

Figure Diffusion-weighted MRI exhibits increased signal change in splenium (A), the initial signal resolved on follow-up MRI (B), and performance of Rey-Osterrieth complex figure test also improved

A 19-year-old man presented with vertigo and headache. Diffusion MRI showed an increased signal on the center of the splenium. Neuropsychological assessment demonstrated impairment on immediate and delayed recall of the Rey-Osterrieth complex figure test. His visual memory had improved by the time the splenial lesion disappeared on follow-up MRI (figure).

Although transient splenial lesions are commonly seen on diffusion-weighted imaging related with various conditions, the exact pathophysiology and its significance are not clear.¹ Visual memory performance in our patient supports that splenium has an important role for integration of visual information through the temporal, parietal, and occipital cortical regions.²

Seong-Hae Jeong, MD, Ji Hee Lee, MD, and Ae Young Lee, MD, PhD, Daejeon, Korea

Disclosure: The authors report no disclosures.

Address correspondence and reprint requests to Dr. Ae Young Lee, Department of Neurology, Chungnam National University Hospital 640, Daesa-dong, Joong-ku, Daejeon, 301-721, Republic of Korea; aelee@cnu.ac.kr

1. Doherty MJ, Jayadev S, Watson NF, Konchada RS, Hallam DK. Clinical implications of splenium magnetic resonance imaging signal changes. *Arch Neurol* 2005;62:433–437.
2. Hofer S, Frahm J. Topography of the human corpus callosum revisited: comprehensive fiber tractography using diffusion tensor magnetic resonance imaging. *NeuroImage* 2006;32:989–994.

Neurology®

Reversible visual memory in transient splenial lesion

Seong-Hae Jeong, Ji Hee Lee and Ae Young Lee

Neurology 2009;73;647

DOI 10.1212/WNL.0b013e3181b38a16

This information is current as of August 24, 2009

Updated Information & Services

including high resolution figures, can be found at:
<http://n.neurology.org/content/73/8/647.full>

References

This article cites 2 articles, 0 of which you can access for free at:
<http://n.neurology.org/content/73/8/647.full#ref-list-1>

Citations

This article has been cited by 1 HighWire-hosted articles:
<http://n.neurology.org/content/73/8/647.full##otherarticles>

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):
All Cognitive Disorders/Dementia
http://n.neurology.org/cgi/collection/all_cognitive_disorders_dementia
Clinical neurology examination
http://n.neurology.org/cgi/collection/clinical_neurology_examination
MRI
<http://n.neurology.org/cgi/collection/mri>
Visual processing
http://n.neurology.org/cgi/collection/visual_processing

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 . All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.