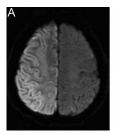


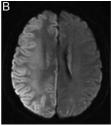
Section Editor Mitchell S.V. Elkind, MD, MS

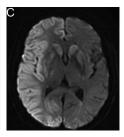
Teaching Neuro *Images*: Anoxic brain injury with unilateral hemispheric cortical involvement

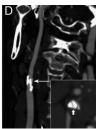
Yong-Won Kim, MD Ji-Hye Seo, MD Sung-Pa Park, MD, PhD Yang-Ha Hwang, MD

Correspondence to Dr. Hwang: yangha.hwang@gmail.com Figure MRI showing anoxic brain injury with unilateral cortical involvement









A diffusion-weighted MRI (A-C) shows hyperintensity in the bilateral basal ganglia and the right hemispheric cortex. Curved planar reformation from neck CT angiography (D) reveals severe stenosis (arrow) of the ipsilesional internal carotid artery with heavy calcification.

A 55-year-old woman collapsed with chest pain and cardiac arrest. Her pulse was restored after 6 minutes of cardiopulmonary resuscitation, but she remained comatose. Brain MRI (figure) revealed bilateral basal ganglia and right hemispheric cortical lesion, which was typical for anoxic brain injury¹ except for the unilateral cortical involvement. Neck CT angiography showed severe stenosis in the right proximal internal carotid artery. The unilateral cortical injury could be explained by compromised cerebral blood flow due to preexisting carotid stenosis.² This case demonstrates an atypical pattern of anoxic brain injury secondary to focal vascular stenosis.

AUTHOR CONTRIBUTIONS

Study concept and design: Y.-W. Kim, Y.-H. Hwang. Analysis and interpretation of data: Y.-W. Kim, J.-H. Seo. Drafting of the manuscript: Y.-W. Kim.

Critical revision of the manuscript for important intellectual content: Y.-H. Hwang, S.-P. Park.

STUDY FUNDING

No targeted funding reported.

DISCLOSURE

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

REFERENCES

- Wijdicks EF, Campeau NG, Miller GM. MR imaging in comatose survivors of cardiac resuscitation. AJNR Am J Neuroradiol 2001;22:1561–1565.
- Spencer MP, Reid JM. Quantitation of carotid stenosis with continuous-wave (C-W) Doppler ultrasound. Stroke 1979; 10:326–330.



Teaching Neuro Images: Anoxic brain injury with unilateral hemispheric cortical involvement

Yong-Won Kim, Ji-Hye Seo, Sung-Pa Park, et al. Neurology 2013;80;e160 DOI 10.1212/WNL.0b013e31828ab2dc

This information is current as of April 1, 2013

Updated Information & including high resolution figures, can be found at:

Services http://n.neurology.org/content/80/14/e160.full

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

http://n.neurology.org/content/80/14/e160.full#ref-list-1

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

following collection(s):

Cardiac; see Cerebrovascular Disease/Cardiac

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

ase-cardiac Coma

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

MRI

http://n.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://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 © 2013 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

