

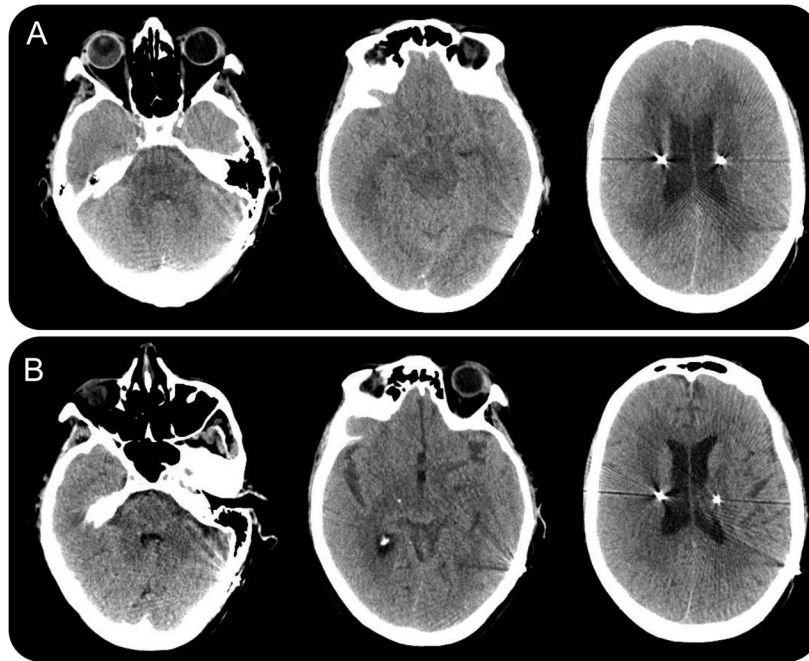
# Teaching NeuroImages: Massive cerebral edema after CT myelography

## An optical illusion

Hugo Botha, MB, ChB  
Samuel A. Moore, MD  
Alejandro A. Rabinstein,  
MD

Correspondence to  
Dr. Rabinstein:  
rabinstein.alejandro@mayo.edu

**Figure** Neuroimaging findings at presentation and the following day



Noncontrast CT scan at presentation (A) shows loss of the sulcal pattern and gray-white distinction, relatively decreased attenuation of the white matter, deep gray structures, and brainstem, and effacement of the basal cisterns and fourth ventricle. Repeat noncontrast CT scan (B) shows marked improvement. Also evident are bilateral deep brain stimulator leads and an old right retinal detachment.

A 74-year-old woman underwent myelography with iohexol to exclude a CSF leak. Three days later, her son noticed mild facial asymmetry and took her back to the hospital. Neurologic status was at baseline except for minimal left nasolabial flattening. Initial head CT appeared to show diffuse cerebral edema (figure, A), but the following morning the appearance had normalized (figure, B). Based on the spontaneous clinicoradiologic improvement, we hypothesize that an illusion of cerebral edema was caused by residual iohexol. Although not reported with iohexol, older agents

can cause hyperdense gray matter and can accumulate in sulci.<sup>1</sup>

#### STUDY FUNDING

No targeted funding reported.

#### DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org](http://Neurology.org) for full disclosures.

#### REFERENCE

1. Centeno RS, Sovak M, Hackney DB, Garfin SR. Brain changes on computed tomography following metrizamide myelography: significance and therapeutic implications. *Spine* 1986;11:509–512.

# Neurology®

## Teaching *NeuroImages*: Massive cerebral edema after CT myelography: An optical illusion

Hugo Botha, Samuel A. Moore and Alejandro A. Rabinstein

*Neurology* 2014;83:e170

DOI 10.1212/WNL.0000000000000946

**This information is current as of October 27, 2014**

<b>Updated Information &amp; Services</b>	including high resolution figures, can be found at: <a href="http://n.neurology.org/content/83/18/e170.full">http://n.neurology.org/content/83/18/e170.full</a>
<b>Supplementary Material</b>	Supplementary material can be found at: <a href="http://n.neurology.org/content/suppl/2014/10/25/WNL.0000000000000946.DC1">http://n.neurology.org/content/suppl/2014/10/25/WNL.0000000000000946.DC1</a>
<b>References</b>	This article cites 1 articles, 0 of which you can access for free at: <a href="http://n.neurology.org/content/83/18/e170.full#ref-list-1">http://n.neurology.org/content/83/18/e170.full#ref-list-1</a>
<b>Subspecialty Collections</b>	This article, along with others on similar topics, appears in the following collection(s): <b>Cerebrospinal Fluid</b> <a href="http://n.neurology.org/cgi/collection/cerebrospinal_fluid">http://n.neurology.org/cgi/collection/cerebrospinal_fluid</a> <b>Critical care</b> <a href="http://n.neurology.org/cgi/collection/critical_care">http://n.neurology.org/cgi/collection/critical_care</a> <b>CT</b> <a href="http://n.neurology.org/cgi/collection/ct">http://n.neurology.org/cgi/collection/ct</a>
<b>Permissions &amp; Licensing</b>	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="http://www.neurology.org/about/about_the_journal#permissions">http://www.neurology.org/about/about_the_journal#permissions</a>
<b>Reprints</b>	Information about ordering reprints can be found online: <a href="http://n.neurology.org/subscribers/advertise">http://n.neurology.org/subscribers/advertise</a>

*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 © 2014 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

