Figure. (A) T2-weighted axial image through the chiasm 1 week following acute right-sided visual loss shows hyperintensity in the right optic nerve and chiasm (arrow). The corresponding axial gradient-echo image (B) shows diffuse signal loss caused by the ferromagnetic effect of blood products, confirming chiasmal and optic nerve hemorrhage.

Optochiasmal apoplexy from a cavernoma

Christine M. Glastonbury, MBBS, Judith E.A. Warner, MD, and Joel D. MacDonald, MD, Salt Lake City, UT

A 25-year-old woman awoke with right-sided visual loss the morning following a severe right temporal headache. An urgent MRI scan suggested optic neuritis, but there was no improvement in vision despite methylprednisolone. On examination of the right side 7 days later, acuity was 20/50–2, and she saw no color plates. There was a trace of optic nerve pallor with increase in cup-to-disc ratio compared with the normal left side. Repeat MRI demonstrated enlargement and T2 prolongation (hyperintensity) of the

prechiasmal right optic nerve and right half of the chiasm (figure 1A). Gradient-echo (GRE) imaging demonstrated marked signal loss (figure 1B). These features suggested hemorrhage into a chiasmal/optic nerve cavernous malformation (cavernoma), which was confirmed at surgical excision.

Optic pathway cavernomas present with either an acute chiasmal syndrome (“apoplexy”) or slowly progressive visual loss.¹ There is a tendency for recurrent hemorrhage within 2 years and surgical resection is usually recommended.² GRE is the most sensitive sequence for detecting blood-products from recent or chronic hemorrhage, which manifests as focal signal loss. Although optic cavernomas are rare, their differentiation from entities with clinically similar presentations, such as optic neuritis, is important because of the potential for permanent compromise of vision.

This work was supported in part by an unrestricted grant from Research to Prevent Blindness, Inc., New York, NY, to the Department of Ophthalmology and Visual Sciences, University of Utah.

Address correspondence and reprint requests to Dr. Christine M. Glastonbury, Section of Neuroradiology, University of California, San Francisco, San Francisco General Hospital, 1001 Potrero Ave., Room 1X55, San Francisco, CA 94110; e-mail: Christine.Glastonbury@radiology.ucsf.edu

1. Warner JE, Rizzo JF III, Brown EW, Ogilvy CS. Recurrent chiasmal apoplexy due to cavernous malformation. *Neuroophthalmol* 1996;16:99–106.
2. Shibuya M, Baskaya MK, Saito K, Suzuki Y, Ooka K, Hara M. Cavernous malformation of the optic chiasma. *Acta Neurochir (Wien)* 1995;136:29–36.

Neurology®

Optochiasmal apoplexy from a cavernoma

Christine M. Glastonbury, Judith E. A. Warner and Joel D. MacDonald

Neurology 2003;61;266

DOI 10.1212/01.WNL.0000073981.50045.74

This information is current as of July 21, 2003

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/61/2/266.full
References	This article cites 2 articles, 0 of which you can access for free at: http://n.neurology.org/content/61/2/266.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): All Imaging http://n.neurology.org/cgi/collection/all_imaging Arteriovenous malformation http://n.neurology.org/cgi/collection/arteriovenous_malformation 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 . All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.