



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

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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.

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