

VIDEO

**Wernicke encephalopathy**

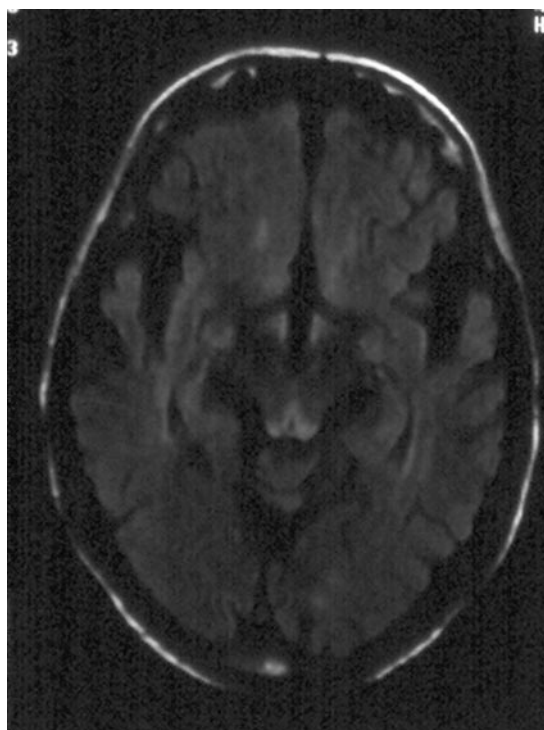
Daniel W. Koontz, MD; Jose Americo Fernandes Filho, MD;  
Stephen M. Sagar, MD; and Janet C. Rucker, MD Cleveland, OH

A 65-year-old woman with a history of alcohol abuse was admitted for dehydration and a urinary tract infection. She was treated with normal saline and ceftriaxone. The following morning she developed complete horizontal ophthalmoplegia, upbeat nystagmus, and gait ataxia. IV thiamine was administered. Brain MRI revealed increased fluid-attenuated inversion recovery signal in the midbrain periaqueductal gray matter and surrounding the third ventricle (figure). Three hours after thiamine administration, horizontal eye movements had improved (see video clip 1 on the *Neurology* Web site; go to [www.neurology.org](http://www.neurology.org)). On discharge, upbeat nystagmus and a wide-based gait persisted. The patient's clinical presentation, MRI, and response to thiamine are classic for Wernicke encephalopathy.<sup>1,2</sup>

1. Leigh RJ, Zee DS. The neurology of eye movements, 3rd ed. New York: Oxford University Press, 1999:559.
2. Weidauer S, Nichtweiss M, Lanfermann H, Zanella FE. Wernicke encephalopathy: MR findings and clinical presentation. *Eur Radiol* 2003; 13:1001-1009.

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Address correspondence and reprint requests to Dr. Janet C. Rucker, Department of Neurology, Case Western Reserve School of Medicine, Hanna House 5th Floor, 11100 Euclid, Cleveland, OH 44106; e-mail: [janet.rucker@uhhs.com](mailto:janet.rucker@uhhs.com)



*Figure. T2-weighted fluid-attenuated inversion recovery axial brain MRI showing abnormal hyperintensity in the periaqueductal gray matter at the level of the midbrain and surrounding the third ventricle.*

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## Wernicke encephalopathy

Daniel W. Koontz, Jose Americo Fernandes Filho, Stephen M. Sagar, et al.

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