Teaching NeuroImages:

Wernicke encephalopathy

Diagnostically deceptive but treatable

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Figure Axial sections of brain MRI

Fluid attenuation inversion recovery sequence showing hyperintensity in the posteromedial thalami (A, arrows) and periaqueductal area (B, arrow).

A 54-year-old woman with 4 months of vomiting after gastric fundoplication presented with confusion, generalized weakness, anterograde amnesia, and ophthalmoplegia. Brain MRI showed hyperintensity in the posteromedial thalami (figure, A) and periaqueductal area (figure, B). Serum thiamine was 22 nmol/L (normal 70–180 nmol/L). Supplementation resulted in rapid improvement of ophthalmoplegia but slow improvement of confusion. Anterograde amnesia persisted despite 2 weeks of supplementation.

Wernicke encephalopathy is characterized by mental status change, gait ataxia, and ophthalmoplegia.¹ Symmetrical alterations in the thalami, mamillary bodies, tectal plate, and periaqueductal areas are typically seen on MRI.² Treatment with

1,500 mg/d thiamine is necessary for clinical improvement.¹

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DISCLOSURE

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

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