Wernicke's Encephalopathy 5 Years After a Whipple Procedure

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Keywords

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Figure 1. Magnetic resonance imaging (MRI) T2 fluid attenuation inversion recovery (FLAIR) showing increased signal symmetrically involving the thalami (A, arrows), mammillary bodies (B, arrows), upper pons (C, arrows), and lower pons (D, arrow) and left middle cerebellar peduncle (D, curved arrows).

Case Presentation

A 54-year-old Hispanic man presented with progressive generalized weakness and gait unsteadiness resulting in multiple falls over the course of 5 days. Over the preceding 2 weeks, he noted mental slowing and difficulty concentrating. Prior to this, he recalls having recurrent vomiting for a few days with diarrhea. He had a Whipple procedure for pancreatic cancer 5 years earlier. He drank socially leading up to his diagnosis of pancreatic cancer but was abstinent since. On examination, his

Figure 2. Diffusion-weighted imaging showing restricted diffusion corresponding to the bilateral thalamic T2 hyperintensities seen in Figure 1A. No other restricted diffusion was noted. Postcontrast studies showed no enhancement.

level of alertness was slightly reduced; he was unable to determine the date but knew the month and year, and he was unable to correctly identify the hospital but he knew he was not at home. He could recall 2 of 3 objects after a 3-minute delay. His language was fluent and speech was not dysarthric. He had

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bidirectional gaze-evoked nystagmus but no ophthalmoparesis. The remainder of his cranial nerve motor and sensory examinations was unremarkable. Deep tendon reflexes were +3 throughout, except both ankles were +2. Plantar reflexes were downgoing. There was slight ataxia with finger-nose-finger testing and more obvious ataxia with heel-knee-shin testing bilaterally. He was able to stand with assistance but had marked truncal ataxia preventing any further gait testing.

Magnetic resonance imaging findings are shown in Figures 1 and 2. He was diagnosed with Wernicke's encephalopathy and treated with 500 mg intravenous thiamine 3 times a day. His symptoms resolved completely over the course of 8 hospital days. His mental status improved quickly to baseline over 3 to 4 days, and his nystagmus was less profound (Supplemental Video 1). It was believed his Whipple procedure led to borderline thiamine deficiency, which was then

compounded by his recent vomiting and diarrheal illness, precipitating Wernicke's encephalopathy. Thiamine deficiency after a Whipple procedure is a well-described phenomenon, but it is unusual after such a long interval.

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