Non-Alcoholic Wernicke’s Encephalopathy in a Post Bariatric Surgery Patient

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Clinical Image

Figure 1: Magnetic resonance imaging of brain demonstrating contrast enhancement in the mammillary bodies (arrows).

A 38-year-old woman with benign essential hypertension and history of bariatric surgery 2 months ago presented with 1-month duration of worsening confusion, lethargy, and blurry vision. Urinalysis was positive for urinary tract infection (UTI). For preliminary diagnosis of acute encephalopathy secondary to UTI, she was treated with ceftriaxone and intravenous hydration. Physical exam was remarkable for a conjugate gaze palsy, horizontal nystagmus, ataxia, and confusion. Due to lack of improvement in mental status, magnetic resonance imaging (MRI) of her head was performed, which then revealed demonstrated contrast enhancement in the mammillary bodies (Figure 1). This MRI finding and clinical presentation of the patient (extraocular dysfunction, ataxia, and altered mental status), were consistent with diagnosis of nonalcoholic Wernicke's encephalopathy. Thiamine level was found to be low at 30.7 μg/dL. In response to intravenous thiamine (500 mg every 8 hours for 2 days, followed by 250 mg daily for 5 days) repletion therapy, she had significant improvement in her mental status, gait stability, and extraocular function.

Wernicke's encephalopathy is a neurological disorder thiamine deficiency, which manifests with the following symptoms: extraocular dysfunction, ataxia, and confusion [1]. Wernicke's encephalopathy typically develops from chronic malnutrition in patients with severe alcoholism, acquired immunodeficiency syndrome, or hyperemesis gravidarum. Wernicke's encephalopathy has been also reported to occur in some patients who had bariatric surgery [2-5]. This case reminds clinicians to consider Wernicke's encephalopathy as a differential diagnosis for post bariatric surgery patients presenting with altered mental status, ataxia, and extraocular dysfunction.

References