Complex ophthalmoplegia denoting Wernicke encephalopathy in a non-alcoholic individual

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DESCRIPTION

A 62-year-old man presented with subacute horizontal binocular diplopia and slight gait imbalance, preceded by frequent episodes of vomiting. The patient had undergone two gastric surgeries for gastric ulcer in the past (in 1988 and 2002). Bilateral internuclear ophthalmoplegia, conjugate vertical gaze palsy and mild tandem gait abnormalities were observed (video 1, part 1; figure 1). Upper gastrointestinal endoscopy and gastric emptying scintigraphy

Video 1 Part 1 demonstrates bilateral internuclear ophthalmoplegia and conjugate vertical gaze palsy. Part 2 was obtained after administration of intravenous thiamine and shows a full recovery of conjugate eye movements.

Figure 1 On admission, position of the patient’s eyes when asked to look (A) right, (B) left, (C) up and (D) down.

Figure 2 Coronal T2-weighted turbo spin-echo (T2TSE) (A) and axial T2TSE (B) MRI of the brain reveal T2 hyperintense lesions extending symmetrically from the floor of the fourth ventricle cranially along mesencephalic tegmentum and quadrigeminal plate up to the medial thalami, without significant expansion, presenting slight gadolinium enhancement.
suggested a delay in gastric emptying. Brain MRI demonstrated hyperintense symmetric areas in the thalami, midbrain tegmentum, quadrigeminal plate and floor of the fourth ventricle, suggesting Wernicke encephalopathy (figure 2). Intravenous thiamine (200 mg three times a day, as recommended) was administered for 15 days, followed by oral thiamine. Serum thiamine concentration was impossible to determine (since this measurement is not performed in our centre), but sustained resolution of the patient’s neurological signs and symptoms within 4 days, in the absence of additional therapeutic measures besides thiamine supplementation, confirmed the diagnosis of Wernicke encephalopathy (video 1, part 2).

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