Transient global amnesia

Amnésia global transitória

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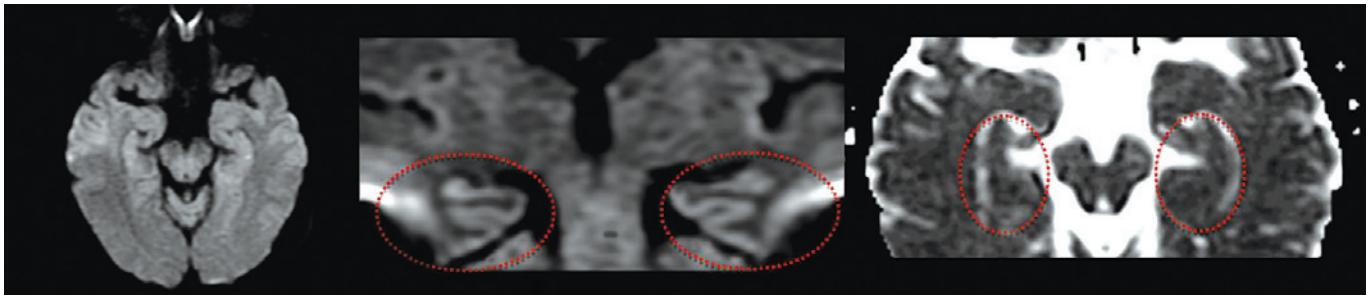

Figure 1. Diffusion sequences (axial and coronal, respectively) and ADC map (axial) on the first day of symptoms, highlighting the hippocampi (circles) that present with no foci of diffusion restriction

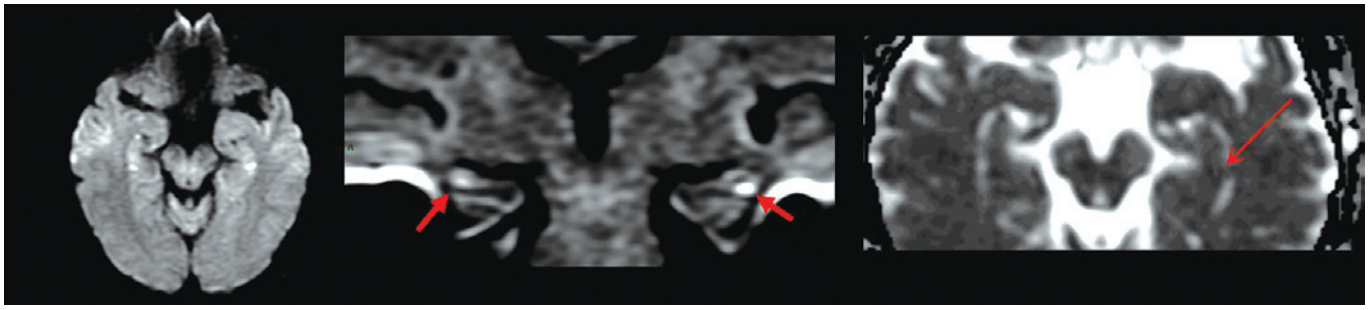

Figure 2. Axial and coronal slices of the diffusion sequence in which hypersignal foci (arrows) are seen, consistent with diffusion restriction in hippocampi. The last image corresponds to an axial slice of the ADC map, characterizing foci of diffusion restriction in the hippocampi

A 65-year-old male patient with no past medical history, complains of sudden loss of memory that lasted about four hours. He was submitted to a magnetic resonance image (MRI) of the cranium, which showed no alterations. Follow-up MRI 48 hours later showed a diffusion restriction focus in the left hippocampus, consistent with the clinical hypothesis of transitory global amnesia (Figures 1 and 2).

Transient global amnesia (TGA) is a syndrome characterized by transient sudden loss of memory and incapacity to acquire new information, lasting a few hours. Complete remission occurs within 24 hours[1].

Recent studies on the diffusion technique have demonstrated hyperintense lesions in the hippocampal region or in limbic system structures in patients with TGA, comparable to patients with cerebral ischemia[2]. A current study published by Sedlaezek suggests that these lesions are usually not visible until 48 hours after the onset of symptoms. Therefore, early MRIs performed in the first 24 hours might not detect a lesion[3,4].

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These hyperintense hippocampal lesions are small in size (1 to 2 mm), with low apparent diffusion coefficients (ADC), and generally remit within two weeks[2,5]. However, these image changes in patients with TGA, despite being seen in ischemia of arterial origin, are not specific and may occur due to prolonged ictal activity, multiple sclerosis, hypoglycemia, venous thrombosis, phenylketonuria, emotional stress, pain, sexual intercourse, and physical activity[1,3].

If the clinical presentation is typical, no additional evaluation is mandatory. In case of doubt, imaging studies may be necessary in order to exclude other differential diagnoses[3]. One must consider that amnesia may be a part of the clinical picture of other diseases, hindering the distinction from TGA based merely on the clinical presentation[6]. There are data that suggest hypoperfusion of the hippocampal region as cause of the disease, and the cerebral image study indicated should be MRI with the diffusion technique, emphasizing that during the first 24 hours, the lesion might not be detected[3,5].

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