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Brainstem reversible leukoencephalopathy syndrome

Síndrome da leucoencefalopatia reversível de tronco cerebral

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A 39-year-old man presented with progressive headache, nauseas, blurriness and cortical blindness. Blood pressure: 230x140 mmHg. Glasgow score: 15. Fundoscopy revealed hypertensive retinopathy and papilledema. Neurological examination was normal. Brain magnetic resonance imaging revealed area of swelling and high signal on FLAIR-weighted images on the brainstem and cerebral white-matter abnormalities (Figure 1). Hypertension management improved his clinical and radiological findings (Figure 2).

Posterior reversible leukoencephalopathy syndrome (PRES), with classical reversible cerebral vasogenic edema, occurred predominantly in the posterior distribution (occipital and parietal lobes) on brain imaging[1-3]. The brainstem involvement is an atypical feature which may be encountered in midbrain (13%), pons (20%) and medulla oblongata (5%)[1-3]. This PRES variant should be differentiated from brainstem infarction, pontine glioma, infective encephalitis, central pontine myelinolysis and others demyelinating disorders because PRES is potentially full reversible after treatment[1-3].

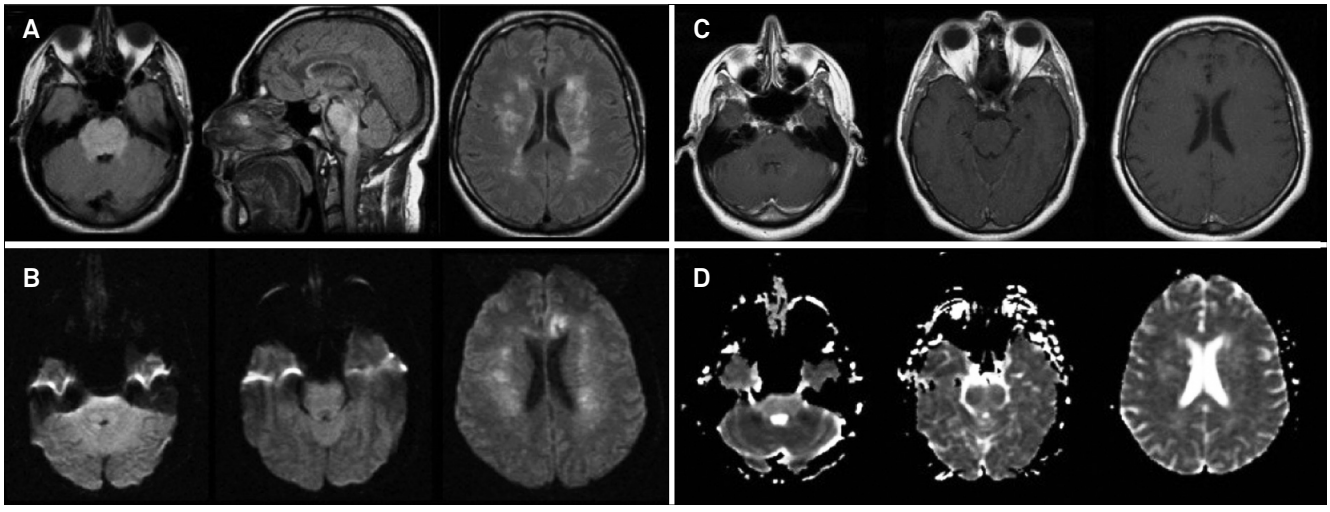

Figure 1. Initial brain magnetic resonance imaging revealed area of swelling and high signal on the brainstem (mainly in pons and medulla oblongata) and cerebral white-matter abnormalities, which are compatible with the brainstem variant of posterior reversible leukoencephalopathy syndrome (A, FLAIR-weighted images; B, diffusion-weighted images; C, T1-weighted images after contrast infusion; D, apparent diffusion coefficient).

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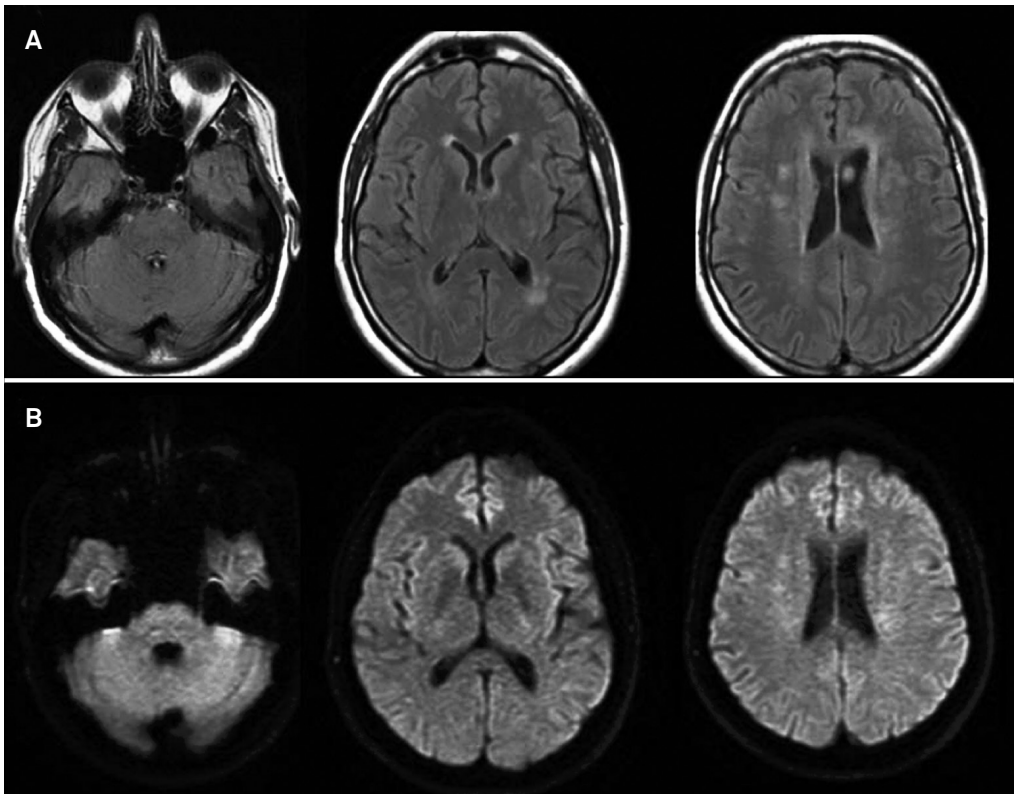

Figure 2. After 6 months of the hypertension management, follow-up brain magnetic resonance imaging showed regression of vasogenic edema that was graded as complete in brainstem (A, FLAIR-weighted images; B, diffusion-weighted images).

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