

Clinical Image

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Metronidazole-induced encephalopathy*João Nuno Oliveira^{1*}; Mariana Lobo²; Rafaela Freitas²; Frederico Duarte³; Pedro Moniz¹; Ana Mafalda Reis¹*¹Neuroradiology Department, Local Health Unit of Matosinhos, Portugal.²Internal Medicine Department, Local Health Unit of Matosinhos, Portugal.³Infectious Diseases Department, Local Health Unit of Matosinhos, Portugal.***Corresponding Author: João Nuno Oliveira**Neuroradiology Department, Local Health Unit of
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Introduction

A 27-year-old male with a long-standing history of chronic otitis media developed a right temporal cerebral abscess. He underwent a mastoidectomy and was treated with intravenous antibiotics, including metronidazole. The patient's clinical condition showed signs of improvement. Nonetheless, 75 days after the initiation of antibiotic therapy, instances of vomiting

and ataxia were recorded during hospitalization, and a follow-up MRI demonstrated new T2/FLAIR hyperintensity in the dentate nuclei bilaterally and the dorsal brainstem. Considering the characteristic imaging findings, along with the patient's prolonged course of metronidazole, a diagnosis of metronidazole-induced encephalopathy was established.

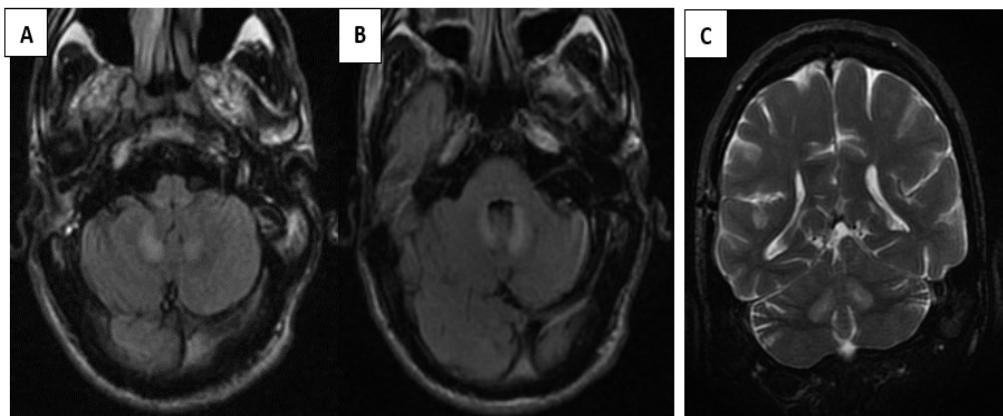


Figure 1: Axial FLAIR images (A and B) and coronal T2-weighted images (C) show T2/FLAIR hyperintensity in the dentate nuclei bilaterally and the dorsal brainstem.

Encephalopathy induced by metronidazole tends to occur more frequently with prolonged therapy or higher doses, often resulting in cerebellar dysfunction. MRI scans typically reveal bilateral and symmetrical abnormalities, primarily affecting the dentate nuclei of the cerebellum and the dorsal brainstem. Clinicians must recognize this potential complication and promptly discontinue metronidazole treatment. In some instances, despite cessation of the medication, a minority of patients may experience lasting neurological deficits.

References

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