

Metronidazole-induced encephalopathy

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Received: Aug 03, 2024

Accepted: Sep 02, 2024

Published Online: Sep 09, 2024

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Cite this article: Oliveira JN, Lobo M, Freitas R, Duarte F, Moniz P, et al. Metronidazole-induced encephalopathy. J Clin Med Images Case Rep. 2024; 4(5): 1731.

Description

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.

Axial FLAIR Figures (Figure 1A and 1B) and coronal T2-weighted Figure (Figure 1C) 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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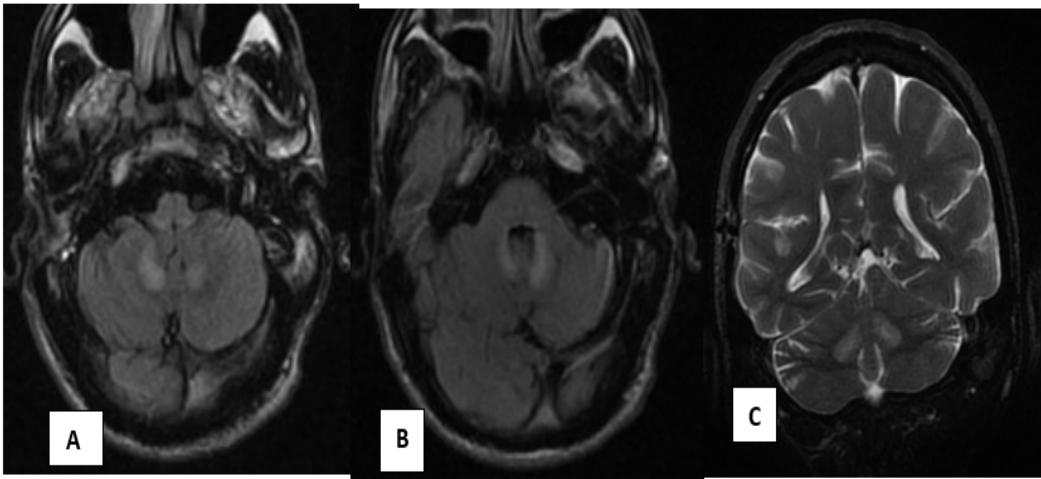


Figure 1: Clinical image.