

Metronidazole

Metronidazole is a widely used antibiotic against anaerobic bacteria and protozoa.

Complications

A case of a gentleman in his early 60s with a liver abscess and a history of three weeks of use of metronidazole therapy presenting with altered sensorium, abnormal gait, and slurring of speech. MRI brain showed bilateral symmetrical hyperintensities involving the dentate nuclei of the cerebellum and dorsal brain stem without evidence of any diffusion restriction suggestive of metronidazole-induced encephalopathy (MIE) ¹⁾

Yokoyama et al. report two cases of metronidazole-induced encephalopathy(MIE) during treatment of a [brain abscess](#) with metronidazole. The patients developed mental disturbance, and brain MRI showed reversible signals on DWI, FLAIR, and T2. Case 1: A 48-year-old woman was admitted to our hospital with a cerebellar abscess. We initiated treatment with oral metronidazole. After taking the medication, she developed mental disturbance, and her brain MRI showed a hyperintensity within the corpus callosum. We suspected metronidazole toxicity and discontinued metronidazole treatment. The symptoms resolved rapidly within a week, and the hyperintensity on the MRI disappeared. Case 2: A 22-year-old man was admitted to our hospital with a brain abscess. We initiated treatment with oral metronidazole. On day 38, he developed mental disturbance, and his MRI showed hyperintensities within the bilateral dentate nuclei and corpus callosum. These symptoms were consistent with MIE. After cessation of metronidazole, his symptoms and abnormal MRI signals completely disappeared ²⁾.

¹⁾

Chaudhari DM, Renjen PN, Hasan U, Goyal N, Ahmad K. Metronidazole-Induced Encephalopathy (MIE). Cureus. 2022 Dec 30;14(12):e33133. doi: 10.7759/cureus.33133. PMID: 36721588; PMCID: PMC9884464.

²⁾

Yokoyama Y, Asaoka K, Sugiyama T, Uchida K, Shimbo D, Kobayashi S, Itamoto K. [Metronidazole-Induced Encephalopathy during Brain Abscess Treatment:Two Case Reports]. No Shinkei Geka. 2015 Oct;43(10):927-32. doi: 10.11477/mf.1436203151. Japanese. PubMed PMID: 26435373.

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