



Metronidazole-Induced Encephalopathy during the Treatment of Advanced Esophageal Squamous Cell Carcinoma

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Clinical Image

A 53-year-old man diagnosed with esophageal squamous cell carcinoma (Lt, T3, N2 [#1, #106recL and #101R], M0, Stage 3) was subject to subtotal esophagectomy after neoadjuvant chemotherapy (DCF; docetaxel, cisplatin, and 5-fluorouracil). After surgical resection, multiple metastases in the liver and spleen appeared, and he was treated again with chemotherapy. After the third course of DCF therapy, he developed a refractory high fever and was treated with antibiotics, including metronidazole. Approximately two months later after the first metronidazole treatment, alteration of consciousness with unresponsiveness was observed. The attending physicians suspected that his esophageal squamous cell carcinoma might have become worse and they introduced the patient to our palliative care unit for best supportive care management. Magnetic Resonance Imaging (MRI) of the brain was performed to screen for brain metastases and revealed hyperintensity in the bilateral cerebellar dentate nuclei (arrows) on fluid-attenuated inversion recovery sequences (Figure A, repetition time/echo time; 8,000/105 msec). We diagnosed this as metronidazole-induced encephalopathy and discontinued the administration of metronidazole. The patient's consciousness improved over the next couple of weeks. One month after metronidazole discontinuation, a follow-up MRI did not disclose any abnormalities (Figure B, repetition time/echo time; 10,000/120 msec). After recovery, he spent a decent and meaningful terminal time of life with his family.

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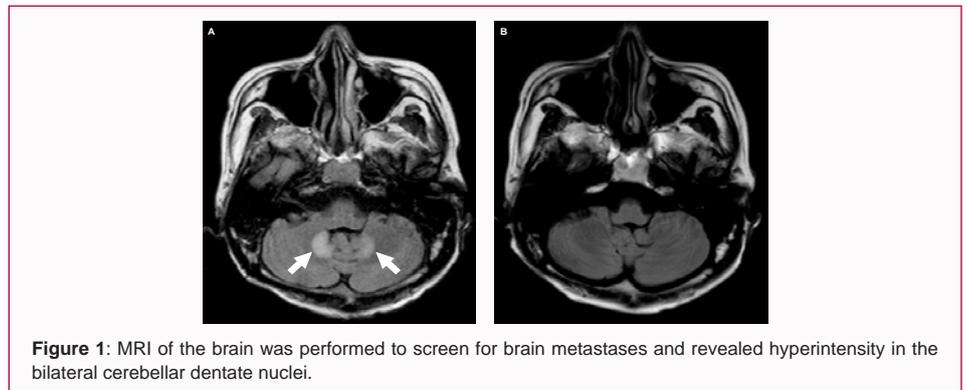


Figure 1: MRI of the brain was performed to screen for brain metastases and revealed hyperintensity in the bilateral cerebellar dentate nuclei.