

[PICTURES IN CLINICAL MEDICINE]

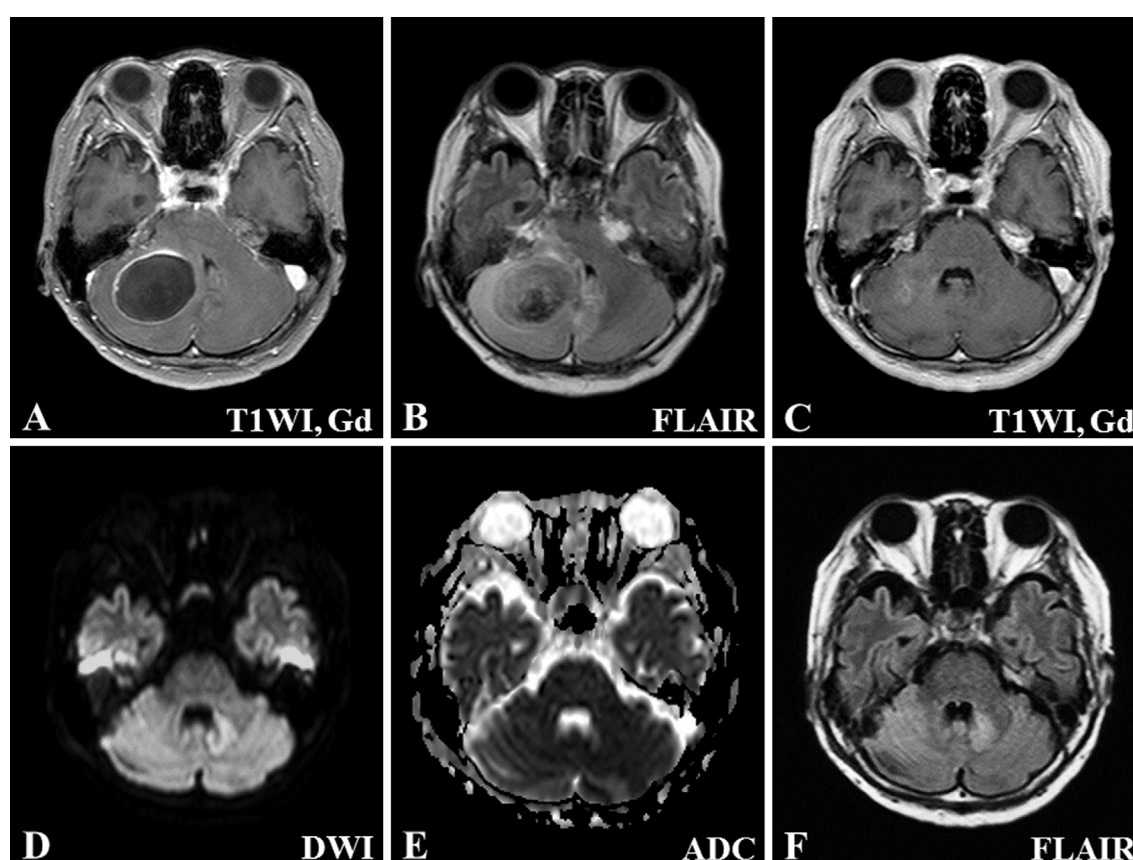
Asymmetric Magnetic Resonance Imaging Findings in Metronidazole-induced Encephalopathy

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Key words: metronidazole, drug-induced encephalopathy, laterality, asymmetry, edema

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Picture 1.

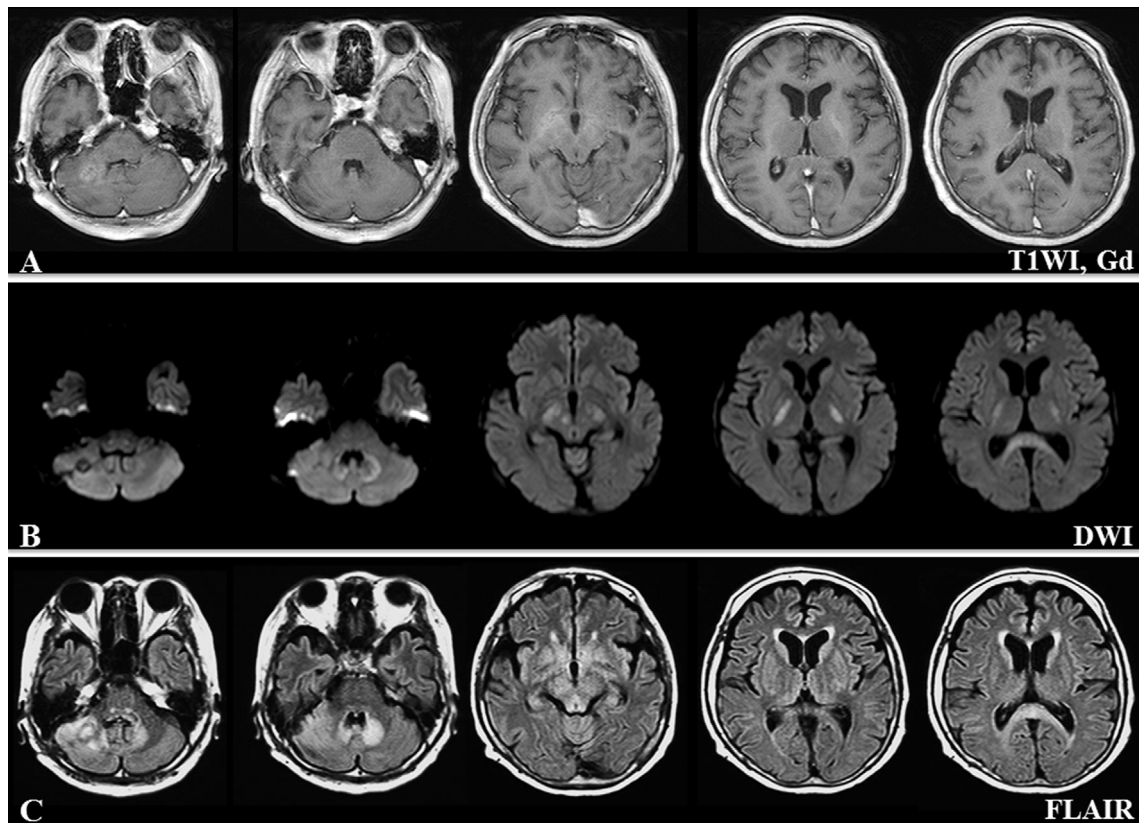
A 61-year-old woman presented with a fever and slight ataxia on the right side. She was diagnosed with right cerebellar abscess (Picture 1A and B), and metronidazole (2 g per day) was administered. She gradually developed gait disturbance and mild ataxia bilaterally. At 15 days after the administration, brain magnetic resonance imaging (MRI) demonstrated a reduction in the cerebellar abscess and an asymmetric high-intensity lesion at the left dentate nucleus (Pic-

ture 1C-F). At 29 days after the administration, the patient lost consciousness, and muscle tonus was decreased bilaterally. MRI showed symmetric lesions at the cerebral peduncles, posterior limbs of the internal capsule, and splenium of the corpus callosum in addition to left-dominant dentate nucleus lesions (Picture 2). Her symptoms and MRI findings improved after the metronidazole was discontinued. She was therefore diagnosed with metronidazole-induced encephalo-

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Picture 2.

pathy. Two cases of asymmetric metronidazole-induced encephalopathy have been reported (1, 2). In the previous cases and this one, the metronidazole-induced lesions always appeared on the side contralateral to the brain abscess. Brain abscess induces vasogenic edema around the abscess, and metronidazole-induced encephalopathy is assumed to result in either or both cytotoxic edema or vasogenic edema. We therefore propose that metronidazole-induced encephalopathy rarely appears on the side ipsilateral to the brain abscess, probably due to as-yet-unidentified interactions between both edematous lesions.

The authors state that they have no Conflict of Interest (COI).

References

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