INTERNAL MEDICINE

□ PICTURES IN CLINICAL MEDICINE □

Reversible "Brain Atrophy" in Anti-NMDA Receptor Encephalitis

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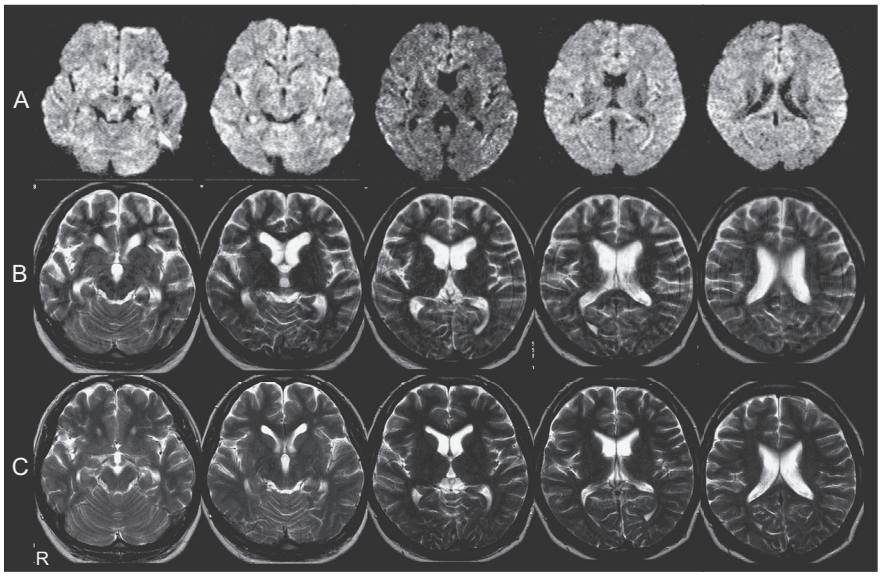

Picture 1.

A 17-year-old woman was admitted to our hospital because of psychosis. She was diagnosed with anti-NMDAR encephalitis with ovarian teratoma on the basis of pelvic CT findings and a positive result for anti-NMDAR antibodies. Diffusion-weighted images obtained at admission showed a hyperintense lesion in the left hippocampus (Picture 1A). She had status epileptics for 10 months and continuously required mechanical ventilation and anesthetic agents; MRI performed 10 months after onset indicated diffuse "brain atrophy" (Picture 1B). Thereafter, she gradually recovered, and her cognitive function improved. MRI performed 3 years after onset indicated marked improvement in "brain atrophy" (Picture 1C). Iizuka et al (1) also reported reversible "brain atrophy" in 2 patients with anti-NMDAR encephalitis who required long-term mechanical ventilation. We considered that the effects of long-term anesthetic agents and/or immune responses of anti-NMDAR encephalitis could cause temporal shrinkage of brain tissue that seemed to be "brain atrophy". These findings suggest that patients with anti-NMDAR encephalitis may recover in spite of the appearance of "brain atrophy".

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

Reference

1. Iizuka T, Yoshii S, Kan S, et al. Reversible brain atrophy in anti-NMDA receptor encephalitis: a long-term observational study. J Neurol **257**: 1686-1691, 2010.

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