On admission, diffusion-weighted images showed remarkable hyperintensity in the whole corpus callosum and symmetrical peripheral fronto-parietal white matter. On the 15th hospital day, diffusion-weighted images showed reversible high intensity in the corpus callosum and symmetrical peripheral fronto-parietal white matter.

A 31-year-old man with a 10-year history of epilepsy developed complex partial seizure. Urgent brain diffusion-weighted images (DWI) showed marked hyperintensity in the entire corpus callosum [apparent diffusion coefficient (ADC) $=0.14 \times 10^{-3}$ mm$^2$/s] and in the symmetric peripheral fronto-parietal white matter (ADC=$0.13 \times 10^{-3}$ mm$^2$/s) without enhancement (Picture 1). EEG showed sharp waves over both frontal regions. On the 15th hospital day, DWI lesions...
were normalized naturally (ADC of corpus callosum, =0.70×10^{-3} \text{mm}^2/\text{s}; front-parietal white matter, =0.71×10^{-3} \text{mm}^2/\text{s}) (Picture 2). MRI finding of a reversible lesion in the splenium of the corpus callosum has been reported in patients with infectious encephalitis/encephalopathy, with or without epilepsy receiving antiepileptic drugs, and in alcoholism, malnutrition and other diseases (1, 2). The clinical and radiological courses were identical to those previously reported with a reversible lesion isolated to the splenium, or to the splenium and peripheral fronto-parietal white matter (3). We suggest that such reversible lesions are not necessarily restricted to the splenium, but may involve the whole corpus callosum and white matter. This is the first case of a transient diffusion lesion of the whole corpus callosum and white matter in an epilepsy case.

References


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