

Teaching NeuroImages:

Crossed cerebellar diaschisis in hemispheric status epilepticus

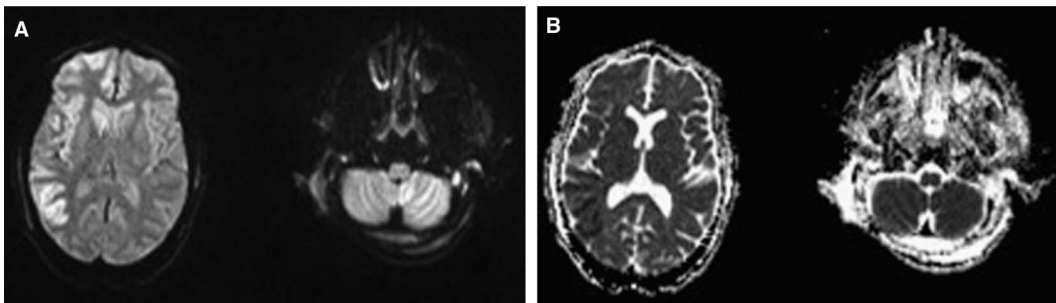
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Figure 1 Continuous EEG at 15 $\mu\text{V/mm}$ illustrating right frontotemporal seizure activity characterized by rhythmic theta/delta admixed with sharp waves over the right frontotemporal region



Figure 2 Axial brain MRI diffusion-weighted imaging (A) and corresponding axial brain MRI apparent diffusion coefficient (B)



Axial brain MRI diffusion-weighted imaging sequence demonstrates restrictive diffusion of the right cortex, right basal ganglia, and left cerebellum (A). Corresponding apparent diffusion coefficient mapping shows restricted diffusion in the right cortex (B).

A 36-year-old woman with Sheehan syndrome was found unresponsive. Evaluation was consistent with Addisonian crisis and myxedema coma. Continuous EEG demonstrated right frontotemporal nonconvulsive status initially refractory to multiple antiepileptic drugs (figure 1).

MRI brain revealed restricted diffusion (figure 2) within the cortex of the right hemisphere and left cerebellum, suggestive of focal status epilepticus. There was no associated enhancement on apparent diffusion coefficient (ADC) (figure 2), and near normalization of ADC mapping on follow-up imaging. Although primarily

recognized in the stroke literature, crossed cerebellar diaschisis may represent injury caused by excessive neuronal transmission from prolonged excitatory synaptic activity via the cortico-pontine-cerebellar pathways.^{1,2}

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