Teaching NeuroImages:

Acute crossed cerebellar diaschisis

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Figure 1 MRI

(A) Diffusion-weighted image demonstrates diffuse gyriform diffusion hyperintensity throughout the left cerebral hemisphere, including the thalamus, pulvinar, and insula. (B) Diffusion hyperintensity in the contralateral right cerebellum. (C) Fluid-attenuated inversion recovery image demonstrates diffuse T2 hyperintensity and gyral swelling throughout the left cerebral hemisphere. (D) T1-weighted sequence demonstrates left parietal laminar necrosis (arrow) from prior left parietal infarction.

An 82-year-old woman with a history of chronic left parietal ischemic infarction presented with acutely altered mental status and abnormal right-sided movements. MRI (figure 1) demonstrated gyriform reduced diffusion signal, T2 hyperintensity, and swelling in the left cerebral hemisphere and contralateral right cerebellum. EEG (figure 2) revealed lateralized periodic discharges, likely representing seizure activity secondary to the chronic left parietal infarction.

Acute crossed cerebellar diaschisis is hypothesized to result from excessive transmission of excitatory input from the seizing cortex to the contralateral cerebellum via the corticopontocerebellar pathways.^{1,2} This case illustrates the imaging manifestations of this uncommon but important clinical entity.

AUTHOR CONTRIBUTIONS

Hediyeh Baradaran: data acquisition, drafting of manuscript.
Setareh Omran: data acquisition, drafting and revising of

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Figure 2 EEG demonstrates left hemispheric lateralized periodic discharges and intermittent diffuse attenuation periods

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DISCLOSURE

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