A 14-year-old boy with leukemia reported 20 minutes of numbness and weakness of the left face and hand. He had received an intrathecal methotrexate infusion 1 month earlier. Examination showed left-sided ataxia, which resolved within minutes.

Brain MRI (figure) performed 90 minutes after symptom onset showed restricted diffusion at the splenium of the corpus callosum and right frontal white matter. Magnetic resonance angiography and perfusion imaging results were normal.

The diagnosis was delayed reversible methotrexate leukoencephalopathy, a syndrome of transient neurologic dysfunction following intrathecal or IV chemotherapy. It probably represents a metabolic insult to the white matter. The restricted diffusion typically resolves in 1–4 weeks.

REFERENCE
Teaching NeuroImages: Methotrexate leukoencephalopathy mimicking a transient ischemic attack
Georgios Manousakis, David Hsu, Carol A. Diamond, et al.
Neurology 2010;75:e34
DOI 10.1212/WNL.0b013e3181ed9e48

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