

Teaching NeuroImage: Basal Ganglia T1 Hyperintensity and SWI Signal Diabetic Striatopathy in an 18-Year-Old Man With Type 1 Diabetes Mellitus

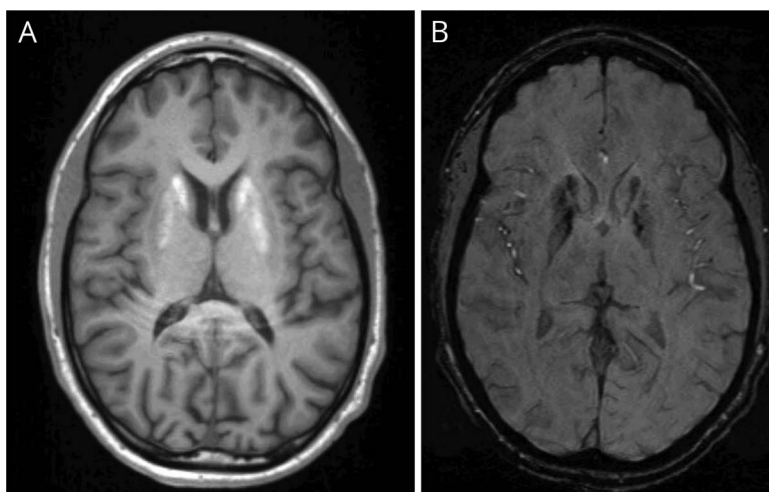
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Figure Magnetic Resonance Imaging Results



(A) Axial T1-weighted MRI showing hyperintensity in the caudate and putamen. (B) Axial susceptibility-weighted imaging showing abnormal signal in the corresponding region possibly reflecting microhemorrhages. Imaging changes can be differentiated from hypertensive hemorrhage by the absence of surrounding mass effect.

An 18-year-old man with type 1 diabetes presented with acute bilateral arm and leg ballismus and oral-buccal dyskinesia. Glucose was 394 and HgbA1c >14. Imaging revealed T1 hyperintensity and susceptibility effect within the basal ganglia (Figure). Symptoms resolved over 48 hours with glucose control. A diagnosis of diabetic striatopathy was made. Diabetic striatopathy, also called hyperglycemic hemiballism/hemichorea, is most often described in older individuals with type 2 diabetes. Clinical symptoms often resolve with glycemic control; however, many patients require pharmacologic treatments. Deep brain stimulation may be beneficial in cases with disabling involuntary movements. Hyperglycemia-induced vasculopathy may contribute to microhemorrhages on imaging.^{1,2}

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Disclosure

J. Tencer reports no disclosures relevant to the manuscript; S. Yum reports no disclosures relevant to the manuscript. Go to [Neurology.org/N](https://www.neurology.org/N) for full disclosures.

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Name	Location	Contribution
Jaclyn Tencer, MD	The Children's Hospital of Philadelphia, PA	Drafting/revision of the article for content, including medical writing for content, and study concept or design
Sabrina Yum, MD	The Children's Hospital of Philadelphia, PA; Perelman School of Medicine at the University of Pennsylvania	Drafting/revision of the article for content, including medical writing for content, and study concept or design

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