Teaching NeuroImages: Reversible neuroimaging findings during treatment of infantile spasms with vigabatrin

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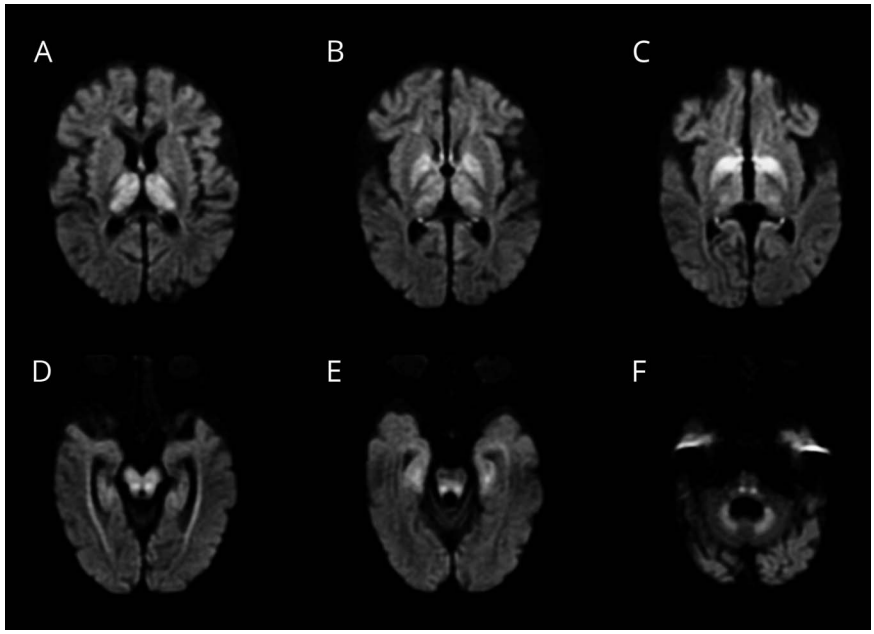
Figure Reversible abnormal MRI findings during treatment of infantile spasms with vigabatrin



Diffusion-weighted imaging showed symmetrical signal change in bilateral thalami (A, B), globus pallidi (B, C), cerebral peduncles (D), central tegmental tracts (D–F), and dentate nuclei (F). Apparent diffusion coefficient maps showed corresponding changes (not pictured). Follow-up imaging 4 months later showed resolution of the changes seen earlier (not pictured).

A 10-month-old boy with global developmental delay presented to clinic with a few months of infantile spasms occurring multiple times a day. His seizures continued despite vigabatrin (dosed at 133 mg/kg/d), levetiracetam, and steroid therapy. On vigabatrin, routine follow-up MRI showed abnormal signal change (figure), which may occur in 30.9% of patients.[1] Risk is associated with a high peak dose but not cumulative.[2] These findings are largely asymptomatic although rarely patients can present with hyperkinetic disorders.[2] The imaging findings resolved on 4-month follow-up after tapering vigabatrin. At 18 months of age, the patient continues to have 1 seizure every 2 weeks.

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Name	Location	Contribution
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Amit Kumar Sharma, MD	Western University, London, Canada	Involved in the concept and writing of the manuscript
Manas Sharma, MD	Western University, London, Canada	Involved in critical revision and study supervision
Andrea Andrade, MD	Western University, London, Canada	Involved in critical revision and study supervision

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