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Vigabatrin Toxicity Mimicking Bilateral Thalamic Strokes

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A 20-month-old female with past medical history of tuberous sclerosis, epilepsy and infantile spasms treated with vigabatrin presented for surveillance Magnetic Resonance Imaging (MRI) for multiple brain hamartomatous lesions and subependymal nodules. MRI showed new restricted diffusion to bilateral thalami and globi pallidi. This finding was concerning for bilateral thalamic strokes, however, due to the patient being asymptomatic with a normal exam, the differential was expanded to infection, metabolic etiologies, or toxic injuries. Without focal or diffuse neurologic symptoms or additional MRI lesions to suggest an acute or chronic pathology, it was determined the MRI signal changes were likely vigabatrin induced. Vigabatrin therapy was continued, and repeat MRI 17 months later showed resolution of the diffusion restriction with no residual sequelae. The patient never developed extrapyramidal symptoms to correlate with her MRI findings during this time, and she remained on vigabatrin therapy without further complications. Vigabatrin-induced MRI abnormalities are an uncommon adverse effect of therapy for infantile spasms, with adverse events being most common in young infants. It is crucial to consider this adverse drug effect in an asymptomatic patient presenting with these MRI lesions as the findings are otherwise suggestive of a serious disease process requiring expensive and invasive workup.