Teaching NeuroImage: Brain Calcification in a Young Woman With Seizures

Explore the Rare Differentials

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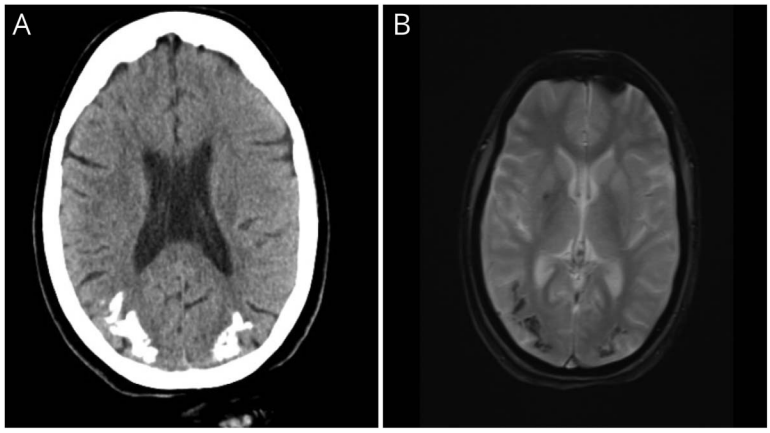
Figure (A) CT Scan and (B) MRI (GRE) Show Bilateral Cortical and Subcortical Calcification in Parieto-occipital Regions



An 18-year-old woman presented with refractory seizures that started at the age of 10 years. There was no history of medication use for other illnesses, radiation exposure, or neurocutaneous stigma. Her CT scan and MRI (GRE) (Figure, A and B) showed bilateral cortical and subcortical calcification in parieto-occipital regions. Based on her imaging findings, celiac disease, epilepsy, and cerebral calcification (CEC) syndrome[1,2] was considered. This was confirmed by the presence of high antigliadin IgA (7.16U/mL), IgG (36.12 U/mL), and IgG tissue transglutaminase (645 U/mL) levels. Interictal EEG showed generalized discharges. Differentials were Sturge-Weber syndrome (SWS), congenital folate malabsorption, treatment with methotrexate and antifolate, and radiotherapy. SWS was excluded because of the absence of facial nevus, lobar atrophy, and subcortical calcification on MRI. Our patient had CEC syndrome with silent celiac disease. A gluten-free diet and antiseizure medications were recommended. She was seizure free on follow-up.

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Author Contributions

B. Menon: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; analysis or interpretation of data. G. Manam: analysis or interpretation of data. P. Reddy: major role in the acquisition of data; analysis or

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References

1. Bouquet F, Bouquet F, Greco L, et al. Coeliac disease, epilepsy, and cerebral calcifications. *Lancet.* 1992;340(8817):439-443.
2. Sunnikutty AP, Harding J, Nelson JC. CEC syndrome–a rare manifestation of coeliac disease. *Ulster Med J.* 2008;77(3):205-206.

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