RESIDENT & FELLOW SECTION

Teaching NeuroImage: Claustrum Sign in Febrile Infection–Related Epilepsy Syndrome

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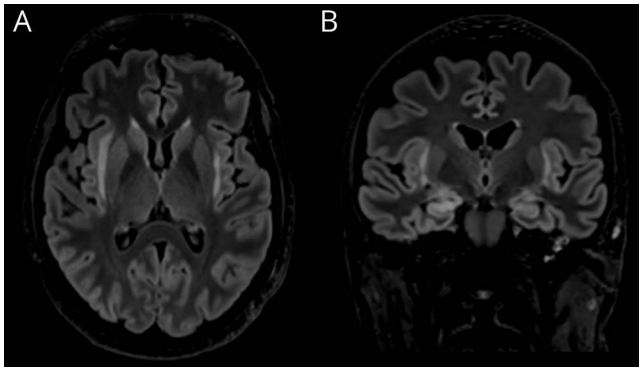
Figure 1 MRI (Fluid-attenuated inversion recovery; A, Axial; B, Coronal) Performed 30 days After the Onset of Status Epilepticus Showed Right-Predominant Hyperintensity and Swelling of the Claustrum, Pulvinar, and Hippocampus



A 40-year-old woman presented with acute encephalopathy and super-refractory status epilepticus 6 days after a febrile illness. An extensive diagnostic workup was negative. EEG and brain MRI showed right-predominant abnormalities, including claustrum T2/FLAIR hyperintensity, the so-called claustrum sign (Figures 1 and 2). This finding has been described in patients with

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Figure 2 EEG Showed Bilateral Asymmetric Lateralized Periodic Discharges, Predominant in the Right Fronto-Temporal Region

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febrile infection–related epilepsy syndrome,[1] a subcategory of new-onset refractory status epilepticus triggered by cytokine storm.[2] Because the claustrum sign has been reported also in other cytokine storm-associated disorders, including acute necrotizing encephalopathy, COVID-19-related encephalopathy, and immune effector cell-associated neurotoxicity syndrome,[3] it may represent a specific marker of cytokine-mediated neuroinflammation.

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Disclosure

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Name	Location	Contribution
Lorenzo Muccioli, MD	Department of Biomedical and Neuromotor Sciences, University of Bologna	Drafting/revision of the manuscript for content, including medical writing for content, major role in the acquisition of data, study concept or design, and analysis or interpretation of data
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