

Mesial Temporal Sclerosis in an Adolescent

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Port J Pediatr 2021;52:68-9

DOI: <https://doi.org/10.25754/pjp.2020.17326>

A 16-year-old male, with a history of febrile seizures during childhood and a family history of migraine (mother), was referred to an adolescent clinic because of two episodes of intermittent left frontotemporal pulsatile headache, lasting for more than one hour, which were associated with nausea and vomiting and that started the previous month. The pain worsened with effort (climbing stairs) and improved with rest. His mother also reported episodes of sudden interruption of activity with staring eyes and no reactions followed by spontaneous recovery of his normal activities. These episodes lasted for a few seconds and happened several times a day. He denied epigastric “rising” sensations, anxiety, automatisms, and autonomic or motor symptoms. Since the beginning of these complaints, his school performance deteriorated. Physical and neurological examination did not reveal any changes and the headache was considered a migraine. Because of the staring episodes, he underwent an electroencephalogram that revealed irregular alpha

activity, frequency 8-9 Hz and amplitude of 40-50 μ V, medium amplitude theta waves in the left center-temporal region eventually compatible with a structural lesion combined with interictal focal epileptic activity. The brain magnetic resonance imaging demonstrated asymmetry of sign of the hippocampus, the left presenting slightly lower size and hyperintensity, an aspect that may indicate left mesial temporal sclerosis (Fig. 1). The patient was oriented to neuropediatric and psychological consultation. Given the simultaneous diagnosis of migraine, he began treatment with valproate 1,500 mg, with a good response and no new episodes since then.

Mesial temporal sclerosis is the most common underlying cause of temporal lobe epilepsy.¹ Although considered an adult disease, the advances in neuroimaging increased its diagnosis at an increasingly younger age. A history of febrile seizures in early childhood is common and the focal seizures are the

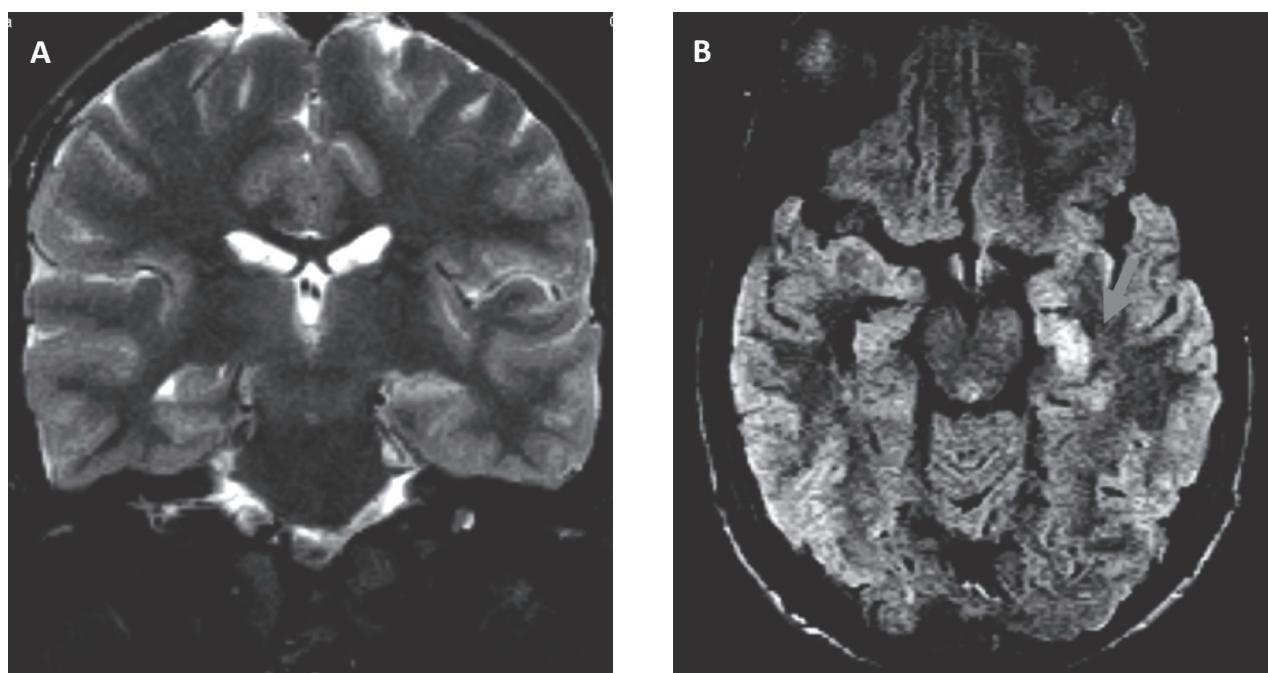


Figure 1. Coronal T2 (A) and axial FLAIR weighted (B) magnetic resonance imaging showing the hyperintensity of the left hippocampus with a decrease in size, which is an aspect that, considering the clinical context, is indicative of left mesial temporal sclerosis.

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Received: 10/03/2019 | Accepted: 20/05/2020 | Published: 03/01/2021

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most frequent clinical manifestation.^{2,3} According to the side of the lesion, there may be attention, memory, and cognition impairment,⁴ which may cause problems in school performance. A multidisciplinary approach is crucial for minimizing an eventual impact in the normal development of the adolescent.

Keywords: Adolescent; Epilepsy, Temporal Lobe/diagnosis; Temporal Lobe/pathology; Sclerosis/diagnosis

WHAT THIS REPORT ADDS

- Mesial temporal sclerosis is the most common cause of temporal lobe epilepsy.
- According to the side of the lesion, there may be attention, memory, and cognition impairment, which may cause problems in school performance.
- A multidisciplinary approach is crucial for minimizing an eventual impact in development.

Conflicts of Interest

The authors declare that there were no conflicts of interest in conducting this work.

Funding Sources

There were no external funding sources for the realization of this paper.

Provenance and peer review

Not commissioned; externally peer reviewed.

Consent for publication

Consent for publication was obtained.

Confidentiality of data

The authors declare that they have followed the protocols of their work centre on the publication of patient data.

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