Teaching NeuroImage: Dura Mater Thickening and Enhancement in Anti-NMDAR Encephalitis

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Neurology® Published Ahead of Print articles have been peer reviewed and accepted for publication. This manuscript will be published in its final form after copyediting, page composition, and review of proofs. Errors that could affect the content may be corrected during these processes.
Contributions:
Cheng Xia: Drafting/revision of the manuscript for content, including medical writing for content; Major role in the acquisition of data
Hui-Sheng Chen: Study concept or design; Analysis or interpretation of data

Figure Count:
1

Table Count:
0

Search Terms:
[ 120 ] MRI, anti-NMDAR encephalitis, dura mater, pachymeninges

Acknowledgment:

Study Funding:
No targeted funding reported.

Disclosures:
The authors report no relevant disclosures.

Preprint DOI:

Received Date:
2022-03-19

Accepted Date:
2022-06-17

Handling Editor Statement:
A 33-year-old man presented with baryglossia, memory disturbance and seizures for a month. Workup for infectious and rheumatic disease was negative. Serum and cerebrospinal fluid anti-NMDAR antibody were positive. MRI showed cortical and subcortical hyperintensities with adjacent pachymeninges thickening and enhancement (Figure, A-D). Treatment with immunoglobulin and high-dose methylprednisolone produced significant improvement in the symptoms and resolution of changes on the post-treatment MRI (Figure, E-H).

The frequently reported abnormalities on MRI in anti-NMDAR encephalitis are leptomeningeal enhancement and T2/FLAIR hyperintensity cortical and subcortical in temporal lobe, followed by frontal lobe, periventricular region and cerebellum, rarely involving the dura mater1,2.


References
2. Suzuki H, Kitada M, Ueno S, et al. Anti-NMDAR encephalitis preceded by dura...
Figure. Neuroimaging (MRI) during the course of the disease
Fluid-attenuated inversion recovery (FLAIR) images (arrow heads; A–B) showed multiple cortical and subcortical hyperintensities with adjacent dura mater thickening and enhancement (arrows; C-D). The FLAIR hyperintensities and dural enhancement improved after treatment (E-H).
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*Neurology* published online July 20, 2022
DOI 10.1212/WNL.0000000000201060

This information is current as of July 20, 2022

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