Reviewer’s report

Title: Immune Mediated Pediatric Encephalitis – Need for Comprehensive Evaluation and Consensus Guidelines

Version: 0 Date: 30 Aug 2019

Reviewer: Frank Leypoldt

Reviewer's report:

The authors describe four cases of clinically suspected autoimmune encephalitis in paediatric patients. They did not fulfil previously published criteria of AE and they report autoantibody testing showed inconclusive results. Response to immunotherapy was very limited.

My main concern is that currently, physicians tend to overestimate the chance of autoimmune ethology (autoimmune encephalitis) in patients which don't have the currently accepted "red flags" e.g. new onset seizures, MRI and/or CSF changes suggesting inflammation. At the same time, as the authors acknowledge, correct testing and its interpretation can be difficult. One example is that the authors write of CASPR2 abs being see but not confirmed. The report lacks details on the exact type and result of autoantibody testing. E.g. CASPR2 cell-based assay in CSF and serum using Euroimmun kits? Which confirmatory test was done. Which test was used for GAD and what was the exact result in CSF and serum. Similar for GFAP (serum and csf, tissue confirmation?). Was tissue-based testing performed as is suggested by Graus et al Lancet Neurol (Cosnensus criteria) before diagnosing "seronegative" cases. Ay report of suspected seronegative cases of AE should follow very stringent testing criteria otherwise it is not helpful for the clinical and scientific community.

I would suggest to shorten the cases and add methods on antibody testing done.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Unable to assess

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess
Are the conclusions drawn adequately supported by the data shown?
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No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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