Reviewer’s report

Title: Fulminant encephalopathy in a child with hyperferritinemic sepsis: a case report

Version: 0 Date: 24 Nov 2019

Reviewer: Takafumi Sakakibara

Reviewer's report:

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This is an important case report where early MRI has led to appropriate treatment intervention for child sepsis-associated encephalopathy (SAE) with diffuse abnormal signal and hyperferritinemia, and has led to a good prognosis. There are few reports like this rare case. However, there are a number of concerns that I listed below.

Major comments

1. What was the reason that this case was determined to be Sepsis? In the text, body temperature is normal at the time of hospitalization, and the causative microorganism cannot be identified by culture, serological evaluation and PCR. What was the reason for determining that this episode was due to infection? How did you exclude metabolic disorders and autoimmune diseases (autoimmune-associated hemophagocytic syndrome etc…)?

2. In this case report, MRI imaging findings and delayed hyperferritinemia are important. How do you estimate the pathological mechanism of this case with hyperferritinemia as the difference between the MRI image of this case and previous reports? Also, what does "appropriate treatment" specifically mean in the conclusion?

Minor comments

1. Page 3, Line 78-79: Is hospitalization date important in this case report?
2. Page 3, Line 88: Under what conditions was SpO2 recorded? Room air? Or under oxygen?
3. I recommend that you explain the following abbreviation:
   Page2, line 51: CRRT
   Page5, line 141: DIC, AKI, CLS
   Page5, line 142: CVVH
   Page5, line 145: LVEF

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?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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

Needs some language corrections before being published

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