

Response to Reviewer's comments:

1. The presented case indicates that there is acute alcoholic hepatitis with chronic liver disease, suggesting acute on chronic liver disease (ACLF). It is reported that in ACLF there is two components of cerebral edema intracellular and extracellular component not just vasogenic, please clarify?

*This has been clarified and highlighted in the manuscript. Essentially, it is the vasogenic edema that is common in both hepatic encephalopathy and PRES, suggesting a possible causal relationship. However, hyperammonemia can also cause intracellular and extracellular edema. Two new references were added to fully clarify this. "In this study, the higher grades of HE corresponded to an increased brain water content. Similarly, treating hyperammonemia resulted in decreased brain water content (7). Lastly, hyperammonemia has been implicated in the dysregulation of cerebral blood flow and consequent cerebral vasodilation causing vasogenic edema (8, 9). It is the presence of additional vasogenic edema that has also been implicated in the specific pathogenesis of PRES."*

2. I did not see the level of ammonia in the manuscript at any time point, did authors measure the ammonia level? If yes please provide the values.

*The ammonia level was 300 mcg/dL. This is added to the manuscript and highlighted.*

3. Did authors try to measure the glutamine or glutamate levels from the PRES using proton MR spectroscopy to confirm the ammonia induced changes? Glutamine and glutamate levels were not measured as this would not change our management. The overall plan for the patient's care involved lowering the ammonia levels to improve the hepatic encephalopathy.

4. Authors performed repeat MRI, Is there any difference between first and repeat MRI?

*The MRI was unchanged from the previous MRI, though it was better quality because there was less artifact from patient movement.*

5. How authors assess the mental state, please include in the manuscript.

*Altered mental status was gauged by the West Haven Criteria, by which the patient was grade 3 hepatic encephalopathy. This is highlighted in the manuscript.*

6. Please include the AST and ALT unit.

*This was completed as reflected in the manuscript*

7. What was the grade of HE during brain MRI in both time points? *This is highlighted throughout the manuscript. The patient presented as grade 3 hepatic encephalopathy, she did not improve throughout her hospital course, which is why the first MRI was performed. It showed PRES at the time. Upon her re-admission the day after discharge, she was post-ictal in the emergency department after having a witnessed seizure at home. After the post-ictal state, she was also grade 3 encephalopathy.*

8. Please modify the Direct Bilirubin to direct bilirubin. *This was changed.*

1)The authors suggest that hyperammonemia could have been a contributing factor for PRES. However, the authors do not mention serum ammonia concentrations in this case report. The authors should expand their data and report ammonia levels in the blood of this patient. This is important as patients with alcoholic hepatitis or even acute liver failure do not always develop PRES though serum ammonia concentrations are generally elevated.

*This was added to the manuscript as mentioned above.*

2)The BMI of the patient should be reported as fatty liver could worsen the etiology of this disorder and could potentially contribute to PRES in this case. If this patient was outside the normal BMI range, the discussion should be expanded to describe this. If the patient is in the normal range, please just report the BMI.

*The patient's BMI was added to the manuscript, it was not higher than the normal range.*

3)Has any liver histology been performed on this patient? It would be interesting to know if this patient has cirrhosis as the patient has severe alcoholic hepatitis. If this is available to the authors, please report this data as it is possible that portal hypertension could be contributing to the pathology observed in this study (which the authors already describe in their discussion)

*Liver biopsy and histology were not obtained as it would not affect management and this invasive procedure may cause more harm than good. The patient clinically had signs of end-stage liver disease, including asterix, spider angiomas, varices, ascites, which implied that the patient had portal htn.*

4)There are minor wording/grammar issues that could be corrected. An example is comma splicing errors in the below sentence. Please proofread case report carefully. "This, in turn, results in endothelial dysfunction in the splanchnic and systemic, circulation (extrahepatic)"