Reviewer's report

Title: Primary central nervous system small lymphocytic lymphoma in the bilateral ventricles: two case reports

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Reviewer: Frédéric London

Reviewer's report:

The authors present 2 interesting cases of primary CNS small lymphocytic lymphoma revealed by intraventricular lesions. The cases are unusual in that the lesions are confined to the ventricular system, an extremely rare location. The cases are well illustrated. However, the manuscript needs revision to be suitable for publication.

1. Abstract. It is stated that the "CSF cytology and flow cytometry revealed malignant CD-19 positive clonal population." However, CSF flow cytometry is only described for patient 1. Was this analysis performed in patient 2? If not, it should be mentioned in the text.

2. Introduction: "Small lymphocytic lymphoma (SLL) as a low-grade NHL is different from DLBCL in that its indolent and less aggressive features with good prognosis." Are there any papers to demonstrate it? Please provide a reference. What is the long-term prognosis of this subtype of lymphoma in comparison to high grade PCNSL?

1. Case presentation. The clinical description is poor. The authors link the headache to the brain lesions. A better description of headache should therefore be provided.

2. More information is needed regarding the neurological examination of the 2 patients. No information regarding cognition is provided in the case presentation.

3. CSF: please specify the reference cute off values of the laboratory for the different analyzes

4. Why does the treatment differ between the 2 patients?

5. Please explain the abbreviations of H&E, Cho peak, NAA,NAA/Cr.
6. Discussion. The authors state that the prognosis of the 2 patients was good. I wonder what argument this statement is based on, because they did not provide any information about follow-up except that the headache resolved after treatment. When was the last follow-up? Is there a follow-up MRI available after treatment? How have the lesions evolved after treatment?

7. Discussion. "This image characteristic might be due to the obstruction of pulp vein". What do the authors mean? Obstruction by what? What do 'pulp vein' mean?

8. The authors conclude that lesions enhancing homogeneously in bilateral ventricles is a typical MRI presentation of SLL, but low grade PCNS lymphoma frequently show absent/moderate and heterogeneous/irregular post contrast enhancement in comparison to high grade PCNSL (even though significant overlap may be observed). Can the authors comment?

9. The authors claim that this is the first report of primary CNS SLL involving the ventricles. Has intraventricular involvement been reported with other types of PCNS lymphoma? Is there any other (non tumoral) differential diagnosis that should be considered in case of homogeneously enhancing intraventricular lesions? Adding this information would enhance the discussion.

10. I am not sure that the radiological presentation is typical of primary CNS SLL lymphoma in comparison to other subtype of PCNSL. Therefore the conclusion should be that the presence of homogeneously enhancing intraventricular lesions should raised the hypothesis of primary CNS lymphoma (not only SLL).

11. The last part of the discussion is repetitive and should be revised for clarity.

12. Overall, the manuscript requires significant editing for grammar and syntax. The text is especially difficult to follow at times. There are several grammar and spelling mistakes. E.g (not exhaustive list): abstract: our reports alerts..., symptoms ; introduction: ...delay..., which would like to alert....in mind ; case presentation: multiplemyeloma ; immune-negative ; 2nd ; discussion: the case like this,...
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

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:

Not suitable for publication unless extensively edited

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