Reviewer’s report

Title: Pyramidal system involvement in progressive supranuclear palsy - a clinico-pathological correlation

Version: 2 Date: 21 Aug 2018

Reviewer: Alexander Pantelyat

Reviewer’s report:

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ABSTRACT

"Background" Needs to be a complete sentence linking to the topic of PSP.

Methods

Specify whether PSP subtyping was performed according to the 2017 MDS PSP criteria (Hoglinger et al.) or something else.

Conclusion

The phrase "and may distinguish the classic Richardson syndrome subtype from other progressive supranuclear palsy subtypes" should be edited to reflect that the distinction is pathological (eg, "may distinguish on autopsy"), since the RESULTS section states "however, there was no significant correlation between pyramid system tau pathology and related motor clinical symptoms."

Page 4, Line 15--Specify whether you are referring to median survival from diagnosis or from symptom onset.

Page 6, Lines 25-33--Specify whether subtype assignment was according to the 2017 MDS PSP criteria. If so, please specify level of diagnostic certainty ("probable", "possible", or "suggestive of")
Page 9, Lines 1 and 33--these are inconsistent as the authors first mention excluding 3 patients from analysis and then mention 6.

Page 10, Line 17--specify what is meant by "clinical scores"

Page 13, Line 48--This would be a good place to add comments about disease duration for the patients examined, as well as the gap between last clinical assessment and autopsy. These would have a direct bearing on the analysis, discussion and conclusions.

Page 15, line 46--Edit "Since PSP-RS patients have a more rapid disease progression and more severe disability than non-RS forms, and since individual prognostic markers for PSP patients are still missing, the detection of pyramidal symptoms in PSP could have prognostic importance." to "Since PSP-RS patients frequently have a more rapid disease progression and more severe disability than non-RS forms, and since individual prognostic markers for PSP patients are still lacking, the detection of pyramidal symptoms in PSP may have prognostic importance, although our study was not designed to address this issue."

Table 1--Specify whether diagnoses were determined using the 2017 MDS PSP criteria. Add a column specifying time from last available clinical observation to autopsy.

**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?**
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