Reviewer’s report

Title: Case report: Recurrent pituitary adenoma has increased load of somatic variants

Version: 1 Date: 20 Oct 2019

Reviewer: Shousen Wang

Reviewer's report:

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1. As we know, the leftover of tumor is a critical factor to induce recurrent PA. While whether the resident tumor regrowth is the reason for recurrence needs to do further analyse. The imaging data can be a candidate to assess the likelihood of recurrence. Please support the MRI after the first resection and assess the result briefly;

2. There are enough evidences for PA recurrence in the paper, while it is insufficient for rapid growth. Malignant tumor has the ability of invasion and rapid proliferation. Compare and summarize with some proliferous genes of malignant tumor to highlight the likelihood of rapid proliferation via the brief generalization of various SNPs. And there are too many pleomorphisms about the other five SNPs attribution, and the potential function of gene in PAs is not highlighted. Why do the authors choose these SNPs found in other cancers?

3. Did the authors exclude the effect of treatment on mutation load, such as radiotherapy.

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.
Quality of written English

Please indicate the quality of language in the manuscript:

Acceptable

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