Reviewer’s report

Title: MR imaging features of spinal pilocytic astrocytoma

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Reviewer: Carlos Pérez-Torres

Reviewer's report:

This research article presents a single-site retrospective case series of spinal pilocytic astrocytoma. The focus is on describing common imaging features that could help diagnose this rare disease. In total, the authors describe 13 cases with ADC measurements limited to only 3 of those cases. While the numbers are low, this is understandable given the rarity of the disease and the fact that it is a single-center study. The authors do a good job of describing the features of PA in their cases and the figures show a good range of potential presentations. Overall, this is a good paper with few detriments. My comments are as follow:

1. The methods indicate the use of a head coil but the analysis includes all the way down to the lumbar spine. How would the head coil provide image of the lumbar spine?

2. While the figure captions include labels for the panels, these are not the present in the actual figures.

3. While the article does a great job covering the features of PA, I think it would be good to include one more paragraph in the discussion covering differential diagnosis. Ependymomas are mentioned a few times for example and it would be nice to expand on how the imaging features of PA are unique when compared to other spinal tumors.

4. There were two sentences in the manuscript that made no sense to me:
   a. In the abstract (Page 3 line28): Two had tumors was 1 to 17 vertebral segments, with a mean length of 4.7 segments.
   b. In the discussion (Page 9 line 4): In the current study, a mean size of 4.7 vertebral segments for spinal PA was smaller than previous reports of a mean size of 4.7 vertebral segments for astrocytoma[14].

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:

Needs some language corrections before being published

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