Reviewer’s report

Title: Preliminary application of 3.0T magnetic resonance chemical exchange saturation transfer imaging in brain metastasis of lung cancer

Version: 1 Date: 02 Aug 2019

Reviewer: Yi Zhang

Reviewer's report:

In this manuscript, the authors applied the chemical exchange saturation transfer imaging technique to patients with brain metastasis of lung cancer, and compared the results to those from patients with glioma and normal controls. Forty-one patients and twenty controls were enrolled in this study. This is a novel application of the CEST MRI technique. However, the quality of the work needs to be improved, especially regarding the acquisition and processing of CEST images.

Major comments:

1. Although the quantitative APTw results show a substantial difference between lesion and non-lesion regions, I do not see any clear contrast between tumor and normal tissues in the APTw images provided. Please clarify.

Minor comments:

1. Line 152, Page 7: what is OAx CEST imaging? In addition, please report CEST saturation parameters in the manuscript.

2. Lines 203 - 206, Page 10: move this sentence to the Methods section.

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. 

I am able to assess the statistics

Quality of written English  
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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