Reviewer’s report

Title: The diagnostic performance of $^{18}$F-FAMT PET and $^{18}$F-FDG PET for malignancy detection: A meta-analysis

Version: 0 Date: 14 Aug 2017

Reviewer: Ali Azhdarinia

Reviewer’s report:

Achmad et al. performed a meta-analysis to evaluate the diagnostic accuracy of 18F-FAMT PET in comparison to FDG. The authors identified all clinical trials which compared the two tracers and used study eligibility, quality, and risk of bias to narrow the focus to 6 studies for inclusion in the meta-analysis. 2x2 contingency tables were prepared to determine tracer sensitive and specificity by visual assessment and diagnostic cutoff. They found that 18F-FAMT is comparable to FDG in diagnostic performance, but noted key limitations for each tracer. The analysis appears to be free of bias and highlights the need for prospective multicenter studies outside of the single center report they presented, though limitations in 18F-FAMT must be addressed. The following points must be addressed before a final decision can be made:

Reviewer comments:

1. Since the studies evaluated cover a period of 11 years, were there any changes in the synthesis of 18F-FAMT?

2. Were the imaging parameters for the acquisitions similar for each tracer in trials (i.e., time post-injection)

3. Quality of Figures 1-3 needs to be higher.

4. There are several issues with grammatical errors which need to be corrected.

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 recommend additional statistical review

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

Needs some language corrections before being published

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