Reviewer’s report

Title: A prospective study of magnetic resonance imaging and ultrasonography (MRI/US)-fusion targeted biopsy and concurrent systematic transperineal biopsy with the average of 18-cores to detect clinically significant prostate cancer

Version: 2 Date: 08 Oct 2017
Reviewer: Daniel Jason Margolis

Reviewer’s report:

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This is a markedly improved manuscript. I have only a couple comments on the current version.

In general, I still think the choice of transperineal rather than transrectal approach for biopsy should be highlighted. Accessing the apex and anterior prostate is harder with transrectal technique, which may explain the impressive performance of the transperineal approach. I would encourage the authors to mention this in the Conclusion as well as in the Discussion to explain a potential reason for the difference in these results from prior investigations.

I appreciate the authors' efforts to address MRI factors that affect detection. I might suggest revising lines 189-190 on page 8 as, "This under-detection of PC could be caused by lack of conspicuity on MRI because of image quality, which may result from image noise using very high b-values for DWI, or low temporal resolution for dynamic contrast-enhanced imaging. It could also result from misregistration and mistargeting when MRI correctly identifies suspicious areas."

One other statistical consideration is that only one cut-off value for PSA density was evaluated. A continuous variable model may have shown it to be significant at other values. This could be mentioned in the Discussion.

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

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