Reviewer’s report

Title: Assessment of free-hand transperineal targeted prostate biopsy using multiparametric magnetic resonance imaging-transrectal ultrasound fusion in Chinese men with prior negative biopsy and elevated prostate-specific antigen

Version: 0 Date: 03 Oct 2016

Reviewer: Andre Luis Abreu

Reviewer’s report:

This is a very interesting manuscript.

Comments (please add your comments/responses to the manuscript):

- Why so many targeted biopsies. We usually do 2 per target. The authors did media of 4.

- How experiment was the person performing biopsy? Urologist or radiologist?

- How experiment was the MRI reader radiologist?

- Did you use the TRUS only to delivery or did you actually looked for suspicious HEL? Any TRUS input to your technique?

- This is crucial:

RVS IS NOT a fusion technique. With the RVS there is no superimposed images. The selection point is match visually by the operator and the images are displayed side-by-side. There is no fusion/ overlay or superimposed image..... PLEASE CORRECT accordingly. FUSION is not an appropriate term here. Please correct the Figure legend, as well.

- On Figure, please provide a figure showing the MRI and TRUS clearly, with the same angle, matching each other.

- Could you comment on the costs and logistic of doing a transperineal biopsy , in the OR , under sedation....

- Which antibiotics regiment do you use?

- Detection rate of 41% is low for 16 core biopsy and targeted biopsy. Please comment.

- On multivariate analysis you plugged so many variables for few events. I think this may compromise the entire model. It should be better to use only the stronger predictors on univariate analysis to do the multivariate analysis.
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:

Acceptable

Declaration of competing interests  
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

None

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal