Reviewer’s report

Title: Breast Magnetic Resonance Imaging for Surveillance of Women with a Personal History of Breast Cancer: Outcomes stratified by interval between definitive surgery and surveillance MR imaging

Version: 0 Date: 18 Oct 2017

Reviewer: Sharukh Bhavnagri

Reviewers's report:

1. The overall discussion and conclusions of the paper are clouded by the fact that routine ultrasound screening was performed in conjunction with mammography. While you mention this as a limitation at the end of the paper, I believe that it should be stated more explicitly in the introduction. Essentially you are assessing MR surveillance in a group of women who already receive supplemental surveillance with ultrasound. This presumably affects your cancer detection rate, abnormal interpretation rate etc. of supplemental MR. I think a more full disclosure of this in the introduction (and abstract) is warranted, and interpretation of the results with this in mind should be discussed. Rather than waiting to the limitations section of the report to discuss this item. This also makes your comparison with results from other studies murky, did these other studies also have supplemental US surveillance? Additionally, you mention every 6 month US surveillance for 5 years? Does this play into your results regarding different time intervals (ie if patients's are getting US every 6 months, MR may be superfluous, and MR may become more useful when patients switch to yearly screening?). Again all of these issues with the supplemental US screening need to be addressed up front, and throughout the paper. Therefore your conclusions apply to patients who are already screened with Mammo+ultrasound, and discussion of how this extrapolates to the patient population only screening with Mammo is also warranted.

2. I find figure 1 confusing, and not adequately explained in the text. Please explicitly describe selection process in Methods, which may make figure 1 superfluous.

3. Why was the time point of 36 months used as a cutoff to define your "time intervals?" Perhaps an explanation in the text regarding this decision is appropriate. Also, are there any statistics performed to support that the difference in numbers (difference in cancer detection rate...) for the two groups are statistically significant, and appropriately powered? (The absolute numbers seem relatively small....)
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.

No

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

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