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: 11 Oct 2017

Reviewer: Jaclynn Powell

Reviewer's report:

TITLE: Consider rephrasing "…Results according to different intervals after treatment" to "…Outcomes stratified by interval between definitive surgery and surveillance initiation"

ABSTRACT:

Background: 1st sentence: Consider deleting the words "an" and "experiencing" and change "would benefit" to "may benefit". Last sentence: consider deleting "consecutive".

Methods: 3rd sentence: Delete "CDR and abnormal interpretation rate" (redundant from preceding sentence). Last sentence: consider rephrasing "...statistics were also assessed according to interval..." to "...statistics were stratified by interval..."

Results: For clarity, consider rephrasing "breast lesions" to "intramammary lesions" and contrast this by stating that the "overall abnormal interpretation rate" and "overall CDR" include both intramammary and extramammary lesions.

BACKGROUND:

1ST paragraph: 1st sentence: consider deleting "experiencing"

2nd paragraph: 1st sentence: consider deleting "In contrast". 2nd sentence: consider deleting "generally". Last sentence: consider rephrasing to "Due to sparse data on surveillance breast MR imaging..."
Consider rephrasing to "...from a large group of patients regarding its performance stratified by interval between definitive surgery and implementation of MRI surveillance".

Last sentence: Delete "Therefore"

**METHODS**

**Study population:**

Need to explain why 232 MRs performed during the specified period weren't included in analysis (1053 included, out of 1285), as in Figure 1. Could say something like "MRs performed for reasons other than surveillance were excluded from analysis".

6th sentence: Could rephrase to "Analysis of BI-RADS category assessments of mammograms and ultrasounds performed prior to MR examinations revealed BI-RADS category 1 in 373 examinations...."

**Post-treatment surveillance:**
1st sentence: change to "After definitive breast cancer surgery..." (to distinguish from excisional biopsy)

Since MR was added to the surveillance protocol in 2013, in what year was the original surveillance protocol started?

**MR Imaging technique:**

2nd sentence: probably meant "...axial T1-weighted non-fat-suppressed AND fat-suppressed", rather than "or". Last sentence: Bilateral exams were performed for all patients EXCEPT mastectomy patients

**MR Imaging Evaluation:**

2nd sentence: Delete "routinely" (unless not used universally)
Statistical Analysis:

Delete the word "recurrence" from Ipsilateral breast tumor and Locoregional disease. Ipsilateral disease or locoregional disease could reflect residual/recurrent disease, but could also reflect metachronous cancer.

Paragraph 2, sentence 1: add "biopsy-proven cancers", and delete the word "correctly" (redundant)

Paragraph 3:

1st sentence: delete "cancer detection rate, abnormal interpretation rate" (redundant from 1st sentence of preceding paragraph), change "breast lesions" to "intramammary lesions" (for clarity and to distinguish from extramammary lesions).

2nd sentence: delete "correctly"

3rd sentence: delete sentence (repeated from 2nd sentence of preceding paragraph)

Last sentence: Consider rephrasing "calculated" to "stratified"

RESULTS:

1ST paragraph, last sentence: again, would remove the word "recurrence" and replace with "malignancy" to include both recurrent and metachronous disease.

Cancer Detection Yield For MRI:

1st paragraph, 1st sentence: could rephrase "…with lesions that were BI-RADS category 4…" as "with 21 of the 29 exams classified as BI-RADS category 4 and the other 8 exams demonstrating extramammary lesions suspicious for malignancy (Table 2).

2nd paragraph, 1st sentence: change "…and further imaging" to "…OR further imaging"

Cancer Detection Yield For Breast Lesions:
DISCUSSION:

1st paragraph, sentence 4: Consider rephrasing "had previously underwent" to "had previously undergone"

2nd paragraph:

1st sentence: Consider rephrasing to "…was GREATER than that for examinations performed within 3 years (1.41 per 1000) provides a basis for establishing guidelines regarding timing of surveillance MR imaging initiation following definitive breast cancer surgery."

2nd sentence: rephrase "…similar with the incidence screening cancer detection rate…" to "similar to the cancer detection rate of screening breast MRIs in average risk women in a recent study (7.5 per 1000 examinations, 13 of 1,741) [23]."

3rd sentence: Add comma after "therapy"

4th sentence: consider rephrasing "…with no incidence screening diagnosis of breast cancer made until almost 3 years after a negative MR imaging study" to "with no screen-detected breast cancer diagnoses made within 24 months after a negative MR study [23]."

3rd paragraph: change each instance of "ranges" to "ranged". Change "breast lesions" to "intramammary lesions". Need a space after sentence 4

4th paragraph:

2nd sentence: change "interval" to "intervals"

3rd sentence: delete the last word "itself"

Last sentence: Would be nice to give median intervals of other studies for comparison, since it is stated that the interval in this study was "relatively short". Also, what are the potential implications of this fact for the study?
CONCLUSIONS

What additional studies would be helpful to confirm your findings? (? prospective study, multicenter study, standardized intervals of surveillance after surgery? Etc)

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?
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I am able to assess the statistics

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