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OPEN PEER REVIEW

Tumor Size Measurements with Breast Magnetic Resonance Imaging (MRI) in Elderly Breast Cancer Patients: A Comparison of Breast MRI with Mammography and Ultrasound

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

2 comments · 14 Nov 2020 – 30 Nov 2020

Referee 1 Reviewer

MINOR REVISION 14 Nov 2020

Hi
Overall, it can be said that this study was properly designed and implemented. In addition, the structure of the scientific writing, the statistical analysis, and the presentation of results are acceptable. You just need to consider the following points:
1. Table 1: When the samples are classified according to age category, it is natural for them to have a statistically significant difference in age; as a result, it is better to remove the p-value for age.
2. Table 5: The desired outcome is tumor size. During the statistical analysis, was it treated as binary or continuous? If binary, logistic regression can be used; if continuous, linear regression should be used.

Editor-in-Chief

MINOR REVISION 30 Nov 2020

Dear authors,
According to the reviewers, your article needs Minor Revision.
Regards

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewer 1:

Hi

Overally, it can be said that this study was properly designed and implemented. In addition, in terms of the structure of scientific writing, statistical analysis and presentation of results are acceptable. You just need to consider the following points:

1. Table 1: When the samples were classified according to age category, then it is natural that they have a statistically significant difference in terms of age; As a result, it is better to remove the p-value of age.

2. Table 5: The desired outcome is tumor size. During statistical analysis, how was its nature considered? Binary: Logistic regression can be used; but continuous: linear regression should be used.

Reviewer 2:

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To Reviewer 1

Thank you for your comments.

1. Table 1: As you have pointed out, the p-value of age has been removed in Table 1.

2. Table 5: The analysis presented in Table 5 was analyzed after coding by dividing the tumor size difference between each imaging modality and pathology into 0.5 cm and less and over 0.5 cm. Therefore, we used binomial logistic regression analysis, and the method was described in the manuscript. The title in Table 5 has been modified to match the manuscript.

Thank you!

To Reviewer 2

The reviewer's comments are not displayed.

Please let us know again if any revision is needed.

Thank you!

2 Revision 1

3 comments · 12 Dec 2020 – 3 Jun 2021

Referee 1 Reviewer

ACCEPT 12 Dec 2020

Thanks to the authors for addressing the comments in the manuscript. At present, this manuscript is acceptable from a methodological point of view.

Associate Editor

MINOR REVISION 2 Jun 2021

110817
1-Please correct the title to: “Measurement of Tumor Size in Breast MRI of Elderly Breast Cancer Patients: Comparison with Mammography and Ultrasound”
2-Please correct: “preoperative examinations” to: “preoperative assessments”
3-Please correct: “To compare the accuracy of tumor size measurements by MRI with conventional imaging of mammography (MG) and ultrasound (US) in elderly patients,” to: “To compare the accuracy of MRI versus conventional imaging methods including mammography (MG) and ultrasound (US) in measurement of tumor size in elderly patients,”
4-Please correct: “were analyzed by age group” to: “were analyzed based on age group”
5-This sentence seems incomplete: “Compared to conventional imaging, the T stage agreement of MRI was higher than that of US or MG.” Maybe a better version is: “Compared to conventional imaging methods [including US and MG], the T stage agreement of MRI with histopathology results was higher”
6-Please correct: “(917,704/2,088,849)” to: “(917,704 out of 2,088,849)”
7-What is the meaning of overall in the background? The sentence is somewhat unclear.
8-Please correct: “incidence of only calcifications” to: “frequency of only calcifications”
9-Please correct: “Compared to conventional imaging, the T stage agreement of MRI with pathology in elderly patients (kappa = 0.818) was higher for US (kappa = 0.708) or MG (kappa = 0.560)” to: “Compared to conventional imaging, the T stage agreement of MRI with pathology in elderly patients was higher than US and MG (kappa = 0.818 in MRI and 0.708 and 0.560 in US and MG respectively)”
10-Please delete the title 6. Conclusion and begin the paragraph with the term: “In conclusion”
11-In the table 3 footnote, the term percent agreement (PA) is somewhat unclear and misleading [especially when we notice that we have coefficient of agreement and agreement statistics too]. If by the term “percent agreement (PA)” you mean “concordant cases” [the cases that show similar results], you can apply the following correction:
“The data include the number of cases (n), kappa coefficient of agreement and percentage of concordant cases.”
In this case, please change and modify all other parts related to this change [such as correcting the abbreviation PA in the table and footnote, ….. ..].
12-It is unclear in table 5 and the text whether the logistic regression is univariate or multivariate. It is better to mention this point in the paper.
13-It is recommended that the authors add some figures of all imaging modalities to the paper to improve the paper and its appropriateness for a radiology journal. [If the authors add MRI, US and MG of the same case(s) and interesting cases, it would be better.] [Even adding photos of size measurement in pathology is interesting. If these photos are available, I recommend that the authors add them to the paper.]

Editor-in-Chief MINOR REVISION 3 Jun 2021

Dear authors,
Your article needs Minor Revision.
Regards

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Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

To Reviewer 1

We appreciate your review and comments again.

To Reviewer 2

The accuracy of tumor size measurements by MRI was higher in patients aged 60 years and older, especially in patients with non-dense breasts and mass-type lesions. For comparison, we added figures of an elderly patient with non-dense breast and mass lesion and another older patient with dense breast and calcification lesion. The figures include mammogram, ultrasound, and breast MRI.

To Associate Editor 1

We appreciate all your review and comments.

To Associate Editor 2

We appreciate your review and detailed comments.

1-6, 8-10: We corrected the phrase and sentence as you pointed out.

7: We have corrected the unclear sentence to make the meaning clearer.

11: As you pointed out, the coefficient of the agreement was already provided, so the percent agreement seems unnecessary. Therefore, we removed the percent agreement from the table.

12: The logistic regression was multivariate, and we have corrected all from the manuscript.

13: The measurement of tumor size by breast MRI in older patients was more accurate in non-dense breasts and mass-type lesions. So, we added figures of an elderly patient with non-dense breast and mass lesion and another older patient with dense breast and calcification lesion for comparison.

3 Revision 2

1 comment · 20 Jun 2021

Editor-in-Chief

ACCEPT 20 Jun 2021

Dear authors,
Your article is acceptable for publication in IJR.
Regards