Author’s response to reviews

Title: Magnetic Resonance Imaging Findings of Idiopathic Granulomatous Mastitis: Can it be an Indirect Sign of Treatment Success or Fail?

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Version: 1 Date: 18 Jan 2019

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BMIM-D-18-00246

Magnetic Resonance Imaging Findings of Idiopathic Granulomatous Mastitis: Can it be an Indirect Sign of Treatment Success or Fail?

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Version: 1 Date: 10 Jan 2019

Author's response to reviews: see over

18 Jan 2019

We have reviewed the above manuscript according to your reviewer comments.
Editor Comments:

Can you kindly expand as per reviewer 1’s comments, particularly pay attention to emphasising the meaning of the results.

Requested expansions were done.

Reviewer reports:

Reviewer 1: The work sought to assess whether MRI features of idiopathic granulomatous mastitis can be used to predict treatment outcomes. While this is an interesting concept, the methodology is weak, there is no evidence to support the findings or show how the aims have been achieved. These inadequacies may have influenced the null results obtained. All sections of the paper are poorly written in terms of content, grammar, and spelling. Until all these weaknesses are addressed it would be difficult to interpret the findings of this study.

1. The manuscript was grammarly corrected and requested changes were performed.

Abstract: The results section is scanty and the reported p-value not correctly written. The first part of the conclusion read reads like another introductory statement. The conclusion statement does not well capture the aims of the work.

P value was corrected. The first sentence of the conclusion was removed. Conclusion was rewritten(revised abstract, page 1 line 22)

Background: This section is very brief and does not detail the issues that need to be addressed and the rationale for the work. It is unclear what the authors mean by "... but the effect of MRI findings has not been studied. It is unclear whether the authors are assessing the MRI findings that predict treatment outcomes or are associated with treatment outcomes.

First statement is quite repetitive.

Introduction was expanded and the aim of the study was rewritten.
The sentence “Recently, many sociodemographic factors that may be interfere in the success of treatment options have been investigated, but the effect of MRI findings has not been studied” was removed from the introduction. References were added and rearranged. (page 1, line 9-15)

Methods: Important details are missing or need to be better presented

-How many radiologists re-evaluated the MRI findings?

A single radiologist 16 year-old experienced in the field of breast imaging re-evaluated in the light of breast imaging reporting and data system. (page 1 line 29) Methods were rewritten.

-what were the criteria for classifying MRI features?

The MRI findings of the lesions were classified on the basis of breast imaging reporting and data system (BI-RADS) lexicon established by the American college of radiology. (page 1 line 30)

-A better explanation of the treatment interventions is needed including dosage and timing for the corticosteroids.

“Prednisolone was orally initiated at a dose of 60 mg daily in divided doses, which were tapered slowly with clinical and image improvement, in our patients who received corticosteroid therapy” was added to methods. (page 2 line 40)

-How were the reports of radiologists combined to establish a reference standard?

Reports were re-classified and re-evaluated on the basis of breast imaging reporting and data system (BI-RADS) lexicon established by the American college of radiology

-What criteria were used to characterize treatment outcome?

“Radiologically and clinically complete resolution findings were accepted as criteria in the treatment success.” sentence added to material metod. (page 2 line 43)
-How did the authors account for the factors that influence treatment outcomes?

The relationship between the MRI findings, presence of fistula formation and treatment methods with treatment success was investigated. Since lactation status is a clinical entity; we removed from the table and manuscript. We focused the radiological findings. (page 2 line 45)

-The statistical analyses are inadequate. Chi-Square does not establish the predictors of an outcome as alluded. Logistic linear regression and multivariate analysis may better capture the predictors of treatment outcomes

The statistical analyses was reassessed by using univariate logistic regression and added as new table 2b. The univariate logistic regression test was also added in material metod. (page 2 line 63)

Results: Inadequate. See comment in the methods about the statistical analyses. It is unclear how many patients had each of the features described. Confounders such as history of breastfeeding were mentioned but no explanation was provided for how these were assessed and analyzed. A few variables have been mentioned without explanation of how they contribute to treatment outcomes. Generally, the results section is scanty and not clearly presented. See the analysis suggested above. The characteristics of the study population would be better presented in a table followed by adequate statistical analyses.

“27 months removed from the results and 2.32 years was added to results.” “7 patients had retroareolar involvement, treatment was failed in 2 of them and 1 patient had recurrence”. was added to results. (page 3 line 71)

“Regarding the MRI features of the mass lesions, in 28 cases, the mass was round shaped. In 33 cases, the mass was well circumscribed. The mass enhancement was mostly of the rim type in 41 patients. Abscesses were detected in 39 patients [Fig. 1]. In 33 patients, the NME was regional, and the internal enhancement pattern was mostly heterogeneous [n = 31].” The sentence was added to results (page 3 line 75)

Result was detailed and rearranged.
Discussion: Very brief without emphasis on the meaning of the results, their significance, implications, and relevance to clinical practice. The work is hardly discussed.

Discussion was enriched on the basis of our results (page 4 line 99 and 122).

Paragraphs 1 and 2 read like a review of the literature that is required in the introduction section.

Repetitive sentence was removed from the first paragraph.

Conclusion: first sentence is redundant. Adequate analyses have not be performed to support the conclusions drawn.

First sentence was removed and conclusion was rewritten. (page 5 line 132)

Tables: Good.

Figures: These need to be annotated.

Arrow was added to figures.

We did the revisions that you suggested. I believe my manuscript is more valuable for publication in the journal in the light of advices of you.