Reviewer’s report

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

Version: 0 Date: 04 Jan 2019

Reviewer: Ernest Ekpo

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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.

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

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.

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

- How many radiologists re-evaluated the MRI findings?

- What were the criteria for classifying MRI features?

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

- How were the reports of radiologists combined to establish a reference standard?
- What criteria were used to characterize treatment outcome?

- How did the authors account for the factors that influence treatment outcomes?

- 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

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.

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

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

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

Tables: Good.

Figures: These need to be annotated

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess
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:

Needs some language corrections before being published

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