Reviewer's report

Title: Proteins and carbohydrates in nipple aspirate fluid predict the presence of atypia and cancer in women requiring diagnostic breast biopsy

Version: 3 Date: 29 November 2011

Reviewer: Gertrude C Buehring

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MINOR ESSENTIAL REVISIONS

First paragraph on second page: The first sentence is not quite grammatically correct and should read:
Pathologic spontaneous ND (PND) comes forth from one but not the other breast nipple and generally the breast with ND harbors a benign or malignant tumor [9]. On the other hand, physiologic spontaneous ND is generally from both breasts and is not associated with cancer.

Last 4 lines of p. 7:
I couldn’t find any explanation of what “AUC” and “ROC” stand for prior to what appears to be their first use in the last 4 lines of p. 7. These abbreviations should be defined at the time of first use. AUC is also used in the abstract without an explanation. I have to confess that, not being a statistician, I don’t know what these acronyms mean, so it is possible that there are other readers that also wouldn’t know.

Final paragraph: This paragraph has not been corrected as reviewers requested and is confusing as it stands below:

Combining ND biomarkers that were each each predictive of the presence of atypia or cancer in women requiring breast biopsy to exclude disease maximized disease prediction improved the prediction of both atypia and cancer, regardless of whether or not PND was present.

It should read as follows:

In women requiring breast biopsy to exclude disease, combining ND biomarkers that were each predictive of the presence of atypia or cancer, improved the prediction of both atypia and cancer, regardless of whether or not PND was present.

List of abbreviations:
This list is not complete, e.g. AUC, PND, and several others are not in the list. Please list all abbreviations that are used. This manuscript is heavy with acronyms and since readers may come from a variety of different fields, one cannot assume they are going to know what the acronyms mean.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.