Reviewer's report

Title: Diagnostic value of fine-needle aspiration biopsy for breast mass: a systematic review and meta-analysis

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Reviewer: Ettore Bidoli

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Review of the paper:
Diagnostic value of fine-needle aspiration biopsy for breast mass: a systematic review and meta-analysis
Jian-Lun Liu, Ying-Hua Yu and Wei Wei
BMC Cancer

1. Is the question posed by the authors well defined?
Yes

2. Are the methods appropriate and well described?
Yes

3. Are the data sound?
Yes

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
No, paper needs some improvement.

6. Are limitations of the work clearly stated?
Yes

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Yes

8. Do the title and abstract accurately convey what has been found?
No, subgroups analyses should be reported

9. Is the writing acceptable?
No, English needs to be checked

The paper summarizes the overall value of fine-needle aspiration biopsy of the breast by means of a meta-analysis.

The paper is very interesting, however some points must be cleared.

Major compulsory changes:
- Forest plots (figures 1 and 2) would be more understandable if you disentangle the studies in two groups (with and without sufficient samples) and calculate the summary statistics for the 2 groups both separately and pooled,
- Table 3 can be merged with figures 1 and 2 by adding study characteristics near authors’ names or after 95%CI,
- Please report in results section the indicators (sensitivity, specificity and other measures of accuracy of FNAB) according to: a) guidance type, and b) type of reference standard.
- Discuss the results.

Minor compulsory changes:
- In figure 3 change p0.001 to p<0.001,
- In tables 4 change studies to studies,
- In table 5 change: a) “Study no.” to “Number of studies”, b) 95%IC to 95%CI, and c) pvalue to p-value,
- Are you sure that average sample size was 16642 and that max range was 2128?
- Check English.

**Level of interest:** An article of importance in its field

**Declaration of competing interests:**

I declare that I have no competing interests.