

## Peer Review File

Article information: <https://dx.doi.org/10.21037/abs-23-46>

### Reviewer A:

Dear Reviewer A,

We thank you for reviewing our manuscript and for the constructive comments.

Breast cancer: BC. I think it is appropriate to highlight with the appropriate references why obesity, adiposopathy makes women more sensitive, increases post-operative complications.

Reply: Thank you for the comment, the authors agree. There has been added relevant reasons in the 'background' section.

### Reviewer B:

Dear Reviewer B,

We thank you for reviewing our manuscript and for the constructive comments.

Comment 1:

Do you have any information on complications stratified by delay or immediate reconstruction group because it may affect the outcome? Especially in the immediate group, if the data about neoadjuvant or adjuvant systemic treatment can be seen in this paper, it will help us understand more about the effects of complications that may be due to the treatment effect or surgery alone. And the staging of cancer will help us know more about the patient's disease.

Reply: Thank you for your valuable input, and the authors appreciate your consideration and agree. Regarding complications stratified by delay or immediate reconstruction, regrettably, only one study within our dataset provided such stratification.

Concerning the influence of neoadjuvant or adjuvant systemic treatment on complications, we were challenged due to the relatively small sample sizes within the studies included in our analysis. As a result, conducting meaningful subgroup analysis would not have yielded statistically robust or representative results. Furthermore, only 2 studies reported on the staging of breast cancer. In light of these constraints, we have taken your comments into account and added relevant explanatory notes in the 'result' section, clarifying the reasons for not performing these specific analyses.

### Reviewer C:

Dear reviewer C,

We thank you for reviewing our manuscript and for the constructive comments.

Comment 1:

The title states 'impact' but within the manuscript reference is made to effect and even correlation. Technically, the review should be more cautious and refer to likelihood and occurrences so the title and the manuscript throughout should be revised to reflect this.

Reply: Thank you for the comment, the authors agree. There has been a change in the title of the manuscript.

Comment 2:

The Abstract should be adjusted to reflect the more substantive revisions suggested below

Reply: Thank you for the comment, the authors agree. We have altered the abstract according to the revisions.

Comment 3:

The Background:

This should be brief but the text provides little or no evidence or critical consideration of the current debates around the value (or not) of BMI). This is crucial given the aim to provide threshold BMI recommendations for clinical decision making OR, at least provide a justification for using BMI (e.g., it is problematic but there is evidence that it remains useful).

Reply: Thank you for the comment, the authors agree. There has been added a justification for using BMI in the 'Background' section.

Comment 4:

The paragraphs need reviewing - it could be a formatting change from my view but single sentences are not paragraphs.

Reply: Thank you for the comment, the authors agree. There has been a change in format throughout the manuscript.

Comment 5:

Some of the references are very old (e.g. (12)) and the terminology on some of the psychosocial benefits need rethinking (e.g., improving sexuality makes no sense and is probably in need of revision, LN 73).

Reply: Thank you for the comment, the authors agree. We have altered the sections according to your comments.

Comment 6:

The focus on USA stats rather than providing a more global picture on rates of BR needs reconsidering. Some critical commentary of the global picture but where most of the data comes from would be more nuanced (and aligned to the authors claims about their more nuanced approach per se).

Reply: Thank you for the comment, the authors agree. We have altered the 'background' section according to your comments.

Comment 7:

LN95: which PRISMA checklist was used? The date would be useful and I do not recall this being in the references list. One can only assume that there was no date limitation on the search?

Reply: Thank you for the comment, the authors agree. We used the PRISMA 2020 reporting checklist and have added the date and reference according to your comments.

Comment 8:

The decisions made in relation to exclusion/inclusion for BMI groupings and the definitions of major, minor and loss - these should be revisited in the Discussion or at least some clarification of why these groupings were used is needed

Reply: Thank you for the comment, the authors agree. We have altered the methods and discussion according to your comments.

Comment 9:

The authors do acknowledge some limitations about the clinical data missing from the review but these omissions are treated descriptively (i.e. simply listed) when their implications for the conclusions and recommendations need more detailed consideration. In sum, these caveats should lead to a more cautious set of recommendations than those given in the Discussion. Similarly, there are some stretched inferences made about the meaning of what research does not mention (e.g. no mention = minor complications).

Reply: Thank you for the comment, the authors agree. We have the discussion according to your comments.

Comment 10:

STROBE - there should be individual item based % score given rather than the summary domain table given. This is particularly important given the quality of the research included. A related issue is the use of the levels of evidence pyramid - there is not a clear outline of how this was applied and the actual grading data does not seem to be given but merely 'stated' (LN166).

Reply: Thank you for the comment, the authors agree. We have altered the methods and results according to your comments.

Comment 11:

Discussion:

Again, the argument here could be clearer. It seems that the research included is of poor quality and the pattern of findings unclear but the authors make a clear recommendation. On reading, I would have anticipated a more cautious conclusion. The Strengths and limitations section support this point but the authors do not seem to draw on their own analyses here.

Reply: Thank you for the comment, the authors agree. We have altered the conclusion according to your comments.