Peer Review File
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Reviewer Comments

Comment 1: The article is interesting and well-written. It is necessary to improve the different fields (breast reconstruction, breast augmentation, malformations etc.) in which fat grafting enriched or not with Adipose-derived Mesenchymal Stem Cells (AD-MSCs) and or Platelet-Rich Plasma (PRP) are used, discussing the in vitro and in vivo results obtained. For this reason, it is necessary to report, in addition to the pre-clinical and in vitro results already partially discussed, the fields in which the Fat grafting enriched with AD-MSCs (or not) and enriched with PRP improved the soft tissue volume in the breast analyzing the clinical outcomes (fat graft maintenance) and instrumental outcomes (MRI and Ultrasound) about the presence of oil cyst, necrosis, tumor, recurrences.
Additionally, an updated table in which are reported all the clinical studies must be created.
In this regard, the authors must improve (much more) the discussion section.

Reply 1: We appreciate your interest in our work and agree with your suggestions for improvement. We have carefully addressed your comments and incorporated the following changes:
1. Detailed Discussion of Applications:
We have significantly expanded the discussion section to include a detailed analysis of various fields where fat grafting, enriched or not with AD-MSCs and/or PRP, is used. This includes:
Breast reconstruction: We have elaborated on the current applications of fat grafting in breast reconstruction, discussing how AD-MSCs and PRP can potentially improve outcomes. We have also explored the in vitro and in vivo results supporting these potential benefits.
Breast augmentation: We have addressed how fat grafting, enriched or not, can be utilized for breast augmentation, discussing the clinical and instrumental outcomes (MRI and Ultrasound) regarding fat graft maintenance, oil cyst formation, necrosis, tumor development, and recurrence. We have also mentioned limitations and potential risks associated with this usage.
Malformations: We have discussed the use of fat grafting, enriched or not, in correcting specific breast malformations, outlining potential benefits and limitations.
2. Updated Table:
We have created a new table, as suggested, summarizing all the currently available clinical studies on the use of fat grafting enriched with AD-MSCs and/or PRP in various applications, including breast reconstruction, augmentation, and malformation correction. This table details the study design, procedures, outcomes, and limitations of each included research.
3. Revised Discussion:

We have substantially revised the discussion section to address your specific points. The discussion now includes:

A more comprehensive analysis of the potential benefits and risks of fat grafting, enriched or not, in various applications.

A critical appraisal of the existing literature, highlighting the limitations and the need for further research.

A discussion of the future directions and potential applications of this evolving technology within the field of breast surgery.

Formatting:

All modifications and new information have been clearly highlighted in red within the manuscript for your easy reference.