

## Peer Review File

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### Reviewer A

This is a good paper. Use of fat grafting to correct post surgical and radiation contour deformities is now well established. Your paper supports the next logical step, i.e., the prevention of post lumpectomy cosmetic defects of the breast with concurrent fat grafting.

**Comment 1: The paper would be improved with before/after photos illustrating examples of small, moderate and large breasts.**

Reply1: Within the text, figures 7, 10 and 12 show cases of good results in small, medium and large breasts. (See Version Word with photos added, page 12 line 476, page 14 line 534, page 15 line 578.)

**Comment 2: A detailed table of clinical data for each subject, such as exact volumes of lumpectomy specimens, volume fat graft injected, tumor type, etc., would also be a welcome addition to the paper.**

Reply 2: Yes, it is a good assessment, but we decided not to include this table because it deals with many patients (91) with all that information. We only include the general information of the average tumor size and correction technique, and when we evaluate the total selection of patients for being of different form of presentation both in the primary tumors and different responses in the post neoadjuvant group with negative margins in intraoperative frozen biopsy, we did not find elements of analysis that would change the surgical technique.

**Comment 3: Finally, going forward please consider documenting breast volume. There are several inexpensive 3-D camera systems now available. The data would allow you to compare before and after volume with reasonable accuracy.**

Reply 3: In the past, we measured post-lipofilling breast volumetry in corrections of sequelae of conservative treatment with digital mammography with a specific function of the equipment with good results. We do not have experience with 3D cameras, but I personally believe that in these cases the evaluation of the objective result and the patient's evaluation of her cosmesis added to the quality of life questionnaires that we will report on in future publications are fundamental regardless of the volumetric evaluation.

**Comment 4: Inclusion of 3-5 before after sets of photos and a data table of all subjects would improve the paper.**

Reply 4: In the work we show figures with several pre- and postoperative and post-radiotherapy cases with different volumes and types of breasts with resections in different locations with good and very good results that I believe illustrate the benefits of the technique.(I sent the article with figures detailing the technique in detail and showing the results, I suggest you ask the publisher to provide you with that material. Version Word with photos added, Page 12 line 476, page 13 line 480, page 14 lines 513 and 534, page 15 lines 558 and 578.)

## Reviewer B

The manuscript deserves some methodological formatting corrections and a language with more precision and fluidity.

**Comment 1: The title should not contain reference to oncological outcomes as the follow-up time is too short for any statement of this nature.**

Reply 1: The reference in the title is related to the oncological events that we observed in the follow-up obtained and controlled, keeping in mind that this technique is of relatively recent use. In future publications we will be able to obtain more firm statistical data

**Comment 2: The abstract could be clearer and more concise, there is no reference in the materials and methods of how the interpretation and analysis of the data obtained would be carried out; the same is repeated in the body of the article as there is also no reference to how the data would be evaluated.**

Reply 2: A more concise summary is sent clarifying what was suggested. The methodology in relation to oncological results was limited in this initial experience, to the reporting of local and distant events and the relationship with the type of tumor, biological profile and whether or not neoadjuvant treatment was performed.  
(Corrected the summary that appears in Pages 1-2, lines from 20 to 57)

**Comment 3: The originality of the article is the study of cases undergoing neoadjuvant chemotherapy and could be better worked on by the author, perhaps presenting separate results (residual tumor, volume and weight of the surgical specimen, fat grafting volume, and aesthetic results), seeking to compare the subgroups.**

Reply 3: It is true that the post-neoadjuvant group is the most interesting, and also the most difficult to evaluate due to its heterogeneity and the different types of tumor response. We did not compare it technically with the other group because the technique was the same and the resection, the fat grafting, the injection areas, the injected volumes were always personalized for each patient and always after a resection of the residual tumor with wide margins and controlled with intraoperative frozen biopsy. In this subgroup we were really interested in evaluating the rate of local recurrences compared to cases of primary tumors, but to date we have not had recurrences in either of the two study groups.

**Comment 4: The content of the article is very good, the technique is described in objective and precise details, but the author should put a note, explaining what "nano lipofilling" is (line 273) and in what situation it should be used as it does not there is another reference to such a procedure and how it is performed and what is the indication.**

Reply 4: The nanolipofilling is the subdermal fat injections with more diluted fat injected with fine hypodermic needles to improve skin trophism in selected cases to optimize the result. (I will clarify it in the corrected text page 6 files 265-267)

**Comment 5: In material and methods in line 282 the author states that he performs an over correction of 30-40%, however, in the results in line 362-364 it is written that in all cases a fat grafting of at least twice the resected volume was performed to avoid over correction, complications and poor results.**

Reply 5: Conceptually, injecting twice the volume of fat in relation to the volume of resected tissue does not mean injecting that volume in the area of the defect, which would produce complications and poor results, but rather the lipotransfer is performed in different sectors of the breast, as shown in the figures of the technique in detail to see during the procedure that there is no sequel. The text says: avoiding overcorrecting the resection defect to prevent complications and poor outcomes (Page 9, 358-359). When we refer to not overcorrecting more than 30 or 40%, this percentage is an intraoperative observational assessment to obtain a good result considering the reabsorption of a percentage of the graft and of the residues of solutions that were not eliminated in the decantation.

**Comment 6: Unfortunately, the figures described are not attached to the body of the article, preventing a more complete understanding of the description of the technique presented.**

Reply 6: I sent the article with 12 figures detailing the technique in detail and showing the results, I suggest you ask the publisher to provide you with that material

**Comment 7: The follow-up period is short to correctly assess the outcomes related to: local recurrence and overall survival and its relationship with the procedure performed, a fact recognized by the author. Finally, I believe that this manuscript is quite original, it has great potential to reaffirm and consolidate this new therapeutic approach for the conservative treatment of breast cancer, even in cases of locally advanced breast cancer with good response to neoadjuvant chemotherapy.**

Reply 7: As you clearly clarify, it is necessary to evaluate the oncological results with more time and with a study with a control group without fat grafting to determine the oncological safety in both groups, especially in the post-neoadjuvant group.