

Peer Review File

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Reviewer A

I suggest using better ways of evaluating patient's satisfaction and symmetry, like the Breast-Q questionnaire (or similar) and BCCT.core software (or similar). The surgeon's opinion may be assessed by means of the Harris scale, for example. I missed information on mean follow-up, oncologic outcomes, and Kaplan Meyer curves.

Reply 1: We agree that Breast-Q questionnaire and BCCT.core software are effective tools to evaluate patient's satisfaction and symmetry. We tried to use Breast-Q questionnaire in our previous study while the feedbacks from the patients were not satisfactory, partly because the questions may be a little more and professional for patients. For better understanding and response, we simplified the assessment scale as described in the manuscript. We not only conducted the satisfaction survey but also documented the medical photography for secondary evaluation by surgeons. So we are confident that our data are reliable and convincing. Besides, many published articles from our reference adopted measurements devised by their own and received good results (1-3). The mean follow-up was 90 months and was mentioned in our manuscript (page 11, line 213). Oncologic outcomes were described in the last of Results (page 12, line 225). Because no local occurrence, distant metastasis and mortality was observed in this study, we did not draw Kaplan Meyer curves. We thank you again for your suggestion and we will adopt Breast-Q and Harris scale in our further studies.

Changes in the text: We have modified our text as advised (see Page 12, line 225).

Reviewer B

The authors present a retrospective 12years-study of inverted-T pattern techniques in 148 breasts/74 patients. The indications were bilateral breast ptosis with or without breast cancer. 57 patients had breast ptosis, and 17 diagnosed with breast ptosis and breast cancer. Analysed were inferior, superior, vertical bipedicle and superomedial pedicles (Table 1). The aim is to "provide more technical details as well as cosmetical and oncological outcomes".

At first, a 12years-study with only 74 patients is not really representative. Then, in this study neither the cohorts nor the techniques are homogenous which makes the results not comparable. Breast ptosis and breast-conserving therapy in breast ptosis were compared which is like comparing apples with pears. Conclusions like oncological safety in comparison with aesthetically pleasing results is not coherent. The authors should either focus only on breasts with breast ptosis or oncoplastic surgeries (but only

17 patients in 12 years, which is very low and hardly reasonable) The other focus should be solely on one technique, no mixture of indications and surgical correction techniques. Additionally skin stapler in the very vulnerable t-junction zone are not recommendable and can potentially cause bad scarring in this zone.

Besides the inferior pedicle in Fig.2 seems to very narrow deepithelialised for a sufficient blood supply, especially in the fourth picture, on the right bottom (the pictures are neither numbered). The patient example in Fig 3 has a very low degree of breast ptosis. Inverted T techniques have already been published since decades, so what is the new content of this paper? there is no new technique described!

The patient in Fig. 4 in the preoperative picture has her arms fixed higher than postoperatively. these are no comparable standard photographic perspectives.

Mean sternal-notch-NAC-distance was not documented which is very essential as an important landmark in breast ptosis (!), as well as mean operation time was also not documented. How was the sensitivity analyzed? e.g. Semmes-Weinstein method? There is no new scientific content in this publication which has not been published in previous comparable vastly larger numbered publications concerning inverted T-techniques in breast ptosis or oncoplastic surgery techniques. Please focus on one topic in further studies. The aim of the study is not comprehensible.

Reply 2: Thanks for your reviews. We never compare breast ptosis with breast-conserving therapy in breast ptosis in our study. We just divided our patients into two cohorts and observed the surgical effectiveness of the inverted-T technique respectively, but not comparatively. Because inverted-T technique is used not only as a breast reduction surgery but also a oncoplastic surgery nowadays. We plan to give a comprehensive assessment about this technique so we select two common situations of inverted-T technique for analysis in one study, which is never described in other literatures.

Skin stapler was sometimes used in cases with a tight stretching force, not commonly. Actually, more than ninety percent of our cases were closed using sutures.

According to our experience, it is completely reliable and safe to deepithelialize the inferior pedicle as wide as the length showed in figure 2. Finally, this patient gained a vital NAC and a satisfactory breast appearance.

The patient example in figure 3 had a grade I of breast ptosis and breast cancer meanwhile. But she was concerned severely with the breast ptosis and asked for a breast reduction surgery, otherwise she could have an asymmetry appearance after a classic breast conserving surgery. So we decided to perform an inverted-T oncoplastic surgery on her.

We have modified the figure 4 to ensure a same height pre- and postoperatively. Mean sternal-notch-NAC-distance and operation time have been reported in the manuscript. And the NAC sensitivity was analyzed using Semmes-Weinstein method.

Finally, thanks again for your valuable advice for our study. We will try to focus on one topic in further studies.

Changes in the text: We have modified our text as advised (see Page 9, line 151; Page 10, line 173; Page 10, line 181-190).

Reviewer C

Good paper but needs better pictures of transoperative . Please show how you release the inferior pedicle . Add an important refence below:

Uebel, Carlos Oscar . Breast Reduction: The Superolateral Dermoglandular Pedicle Revisited . *Aesth. Plast.Surg.*(2019) 43:36-45

Reply 3: We have read the article you listed above and cited it in our manuscript. Here is how we release the inferior pedicle: Once general anesthesia was completed, the pedicle was deepithelialized after injected into 0.9% saline with epinephrine (1:250,000). The pedicle was incised with a scalpel down to pectoralis fascia and undermined at 2-cm thickness at the nipple. Medial and lateral pillars were developed. The excess breast tissue and subcutaneous fat was resected en bloc with the superior pole. Then a submammary tunnel was undermined to prepare for the accommodation of the dermoglandular flap. The breast tissue with pedicle was pulled or rotated to fill out the submammary tunnel, and fixed to the pectoralis major fascia using 2-0 nylon sutures to reshape the breast cone (4). At the same time the NAC was brought to its new position. Thanks again for your valuable suggestion.

Changes in the text: We have modified our text as advised (see Page 8, line 138-148; Page 19, line 379).

Reference:

1. Sanchez AM, Franceschini G, D'Archi S, et al. Results obtained with level II oncoplastic surgery spanning 20 years of breast cancer treatment: Do we really need further demonstration of reliability? *Breast Journal* 2020;26:125-32.
2. Wolter A, Fertsch S, Munder B, et al. Double-Unit Superomedio-Central (DUS) Pedicle Inverted-T Reduction Mammoplasty in Gigantomastia: A 7-year Single-Center Retrospective Study. *Aesthetic Plastic Surgery* 2021.
3. Basaran K, Saydam FA, Ersin I, et al. The Free-Nipple Breast-Reduction Technique Performed with Transfer of the Nipple-Areola Complex Over the Superior or Superomedial Pedicles. *Aesthetic Plastic Surgery* 2014;38:718-26.
4. Uebel CO, Piccinini PS, Ramos RFM, et al. Breast Reduction: The Superolateral Dermoglandular Pedicle Revisited. *Aesthetic Plast Surg* 2019;43:36-45.