Management of Tuberous Breast Deformity: A Paradigm Shift

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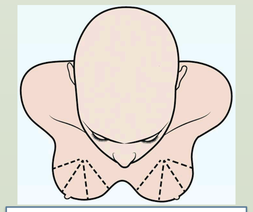
Introduction

- Tuberous breast deformity is generally characterized by a unilateral or bilateral constricted lower pole, elevated inframammary fold, parenchymal hypoplasia (particularly lack of medial cleavage), and nipple areolar complex herniation resulting in an oversized areola.
- Fibrous bands that cause constriction are traditionally released with radial scoring, and correction with percutaneous fasciotomies have also been described. Additionally, breast volume deficiencies are addressed by implant based augmentation and recently by fat grafting.

Limitations of both radial scoring and percutaneous fasciotomies include inadequate release of the inferior pole. Risks of implants include, but aren't limited to, capsular contracture, visible implant margins, rippling, malposition, animation deformity, and bottoming out. Fat grafting avoids these consequences and has been demonstrated to be safe and effective in breast augmentation.

In this study, we describe a new method for surgical management of tuberous breast deformity utilizing superficial wide plane dissection of the inferior pole and serial fat grafting.

Tuberous Breasts



Radial Scoring

Methods

From 2008 to 2023, a total of 16 patients (ages ranged from 18 to 49 years old) with tuberous breast deformity underwent surgical correction with superficial wide plane dissection of the constricted lower pole combined with areolar reduction, mastopexy, and fat grafting with or without implant.

- In the first stage, the shape of the breast was addressed with superficial wide plane dissection to expand the lower pole, and fat grafting was also performed to the extent that the soft tissue would allow for.
- In the second stage, focus was placed on achieving the desired volume as well as revisions to the areola if needed.

Severity of the breast deformities ranged from types 1 through 4. Outcomes were determined by final grade of deformity based on scoring by three primarily aesthetic plastic surgeons.

Results/Complications

- Of the 16 patients with tuberous breast deformity that were treated with superficial wide plane dissection of the inferior pole and fat grafting, 13 of them had resolution of the deformity after a single stage fat transfer (81.25%).
- One patient (6.25%) required implants at first stage due to desire for volume that could not be obtained with single stage fat grafting.
- Three patients (18.75%) required revisions with two of those being mastopexy with second stage fat grafting and the third being augmentation with implants. One of the patients requiring a second stage of fat grafting achieved resolution of deformity from type 4 to type 1.
- Asymmetry was corrected in 10 patients (62.5%), with 3 of those being 50 ml or greater difference between breasts.
- Deformities were corrected in two stages or less. No complications were noted in any first or second stage procedures.

Before **After**

Before **After**

Conclusion

- Superficial wide plane dissection of the inferior pole and serial fat grafting results in a reliably consistent and aesthetically pleasing outcome in tuberous breasts without the requirement of parenchymal radial scoring or implant. The most important deforming forces (lower pole constriction, raised IMF, NAC herniation, and lack of medial cleavage) in the tuberous breast were corrected consistently.
- Patients should be counseled that this option is available and that, due to the lack of soft tissue envelope and parenchyma in tuberous breasts, multiple stages of fat grafting or implant may be needed for larger volumes.

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