Improving breast shape in breast reduction technique: morphometric analysis of the Yin-Yang and the Inferior Pedicle techniques

Francesco Gargano, MD,PhD; Lawrence Bowen, MD; Jack Bevivino, MD; Karen Leong, MD; Rachel Sullivan, MD; Lee Edstrom, MD; Paul Liu, MD

Abstract

Background: Breast reduction techniques should aim to achieve “ideal breast shape” and to our knowledge no studies have well defined, with accurate measurements, its morphometric changes. Our goal is to compare the inverted T inferior pedicle (1) and the “Yin-Yang” (2) techniques and to evaluate which best achieves the “ideal breast shape”.

Methods: 1175 inverted T techniques and 89 Yin-Yang have been performed in the last 5 years by five Authors. Our study prospectively analyzes 40 patients divided in two groups: 1) 19 patients who underwent the inferior pedicle technique and 2) 22 patients with the Yin-Yang technique. The Yin-Yang technique uses the principles of gland remodeling characterized by the following: A) superomedial pedicle for the nipple (SMP), B) glandular resection pattern with an S-shape on the right breast and mirrored S-shape on the left breast, C) inferior pole laterally based dermoglandular flap (IPLB). (Fig.1) The movement and interdigitation of the two flaps narrows the mammary base, stabilizes the lower pole and enhances nipple projection. (Fig.2)

![Fig.1 SM pedicle, inferior pole flap, gland resection](image1)

![Fig.2 Gland remodeling produces narrowing of the breast base](image2)

D) Scar length and T-junction tension are minimized by resecting skin excess via tailor-tacking method. Patients were selected for BMI, grade of hypertrophy and mastopexies were not included. Morphometric analysis was performed collecting mammary base width, nipple projection, NAC and IMF positions, nipple-IMF distance. Photographic documentation with overlapping images was taken before and at patient follow up at 2 weeks, 3, 6 months, and 1 year.

Results: Similar complication rates and nipple sensation findings were detected between the two analyzed techniques. Analysis of the morphometric changes showed statistical significance for both base width (p value<0.001) and projection (p<0.01).

Conclusions: The ideal breast reduction technique should aim to correct the breast hypertrophy features, such as widened base and lateral slope.(3) Tessier (4) and Escoffier (5) introduced the concept of “gland suspension” with dermoglandular flaps to sustain the mammary cone. The Yin-Yang technique represents a new method of gland suspension and uses 2 dermoglandular flaps (SMP and IPLB) that embrace each other to reconstitute the Yin-Yang symbol. The statistical significance in mammary base width (p<0.001) and projection (p<0.01) shows the Yin-Yang technique to be most effective in achieving the "ideal breast shape" while also decreasing scar length and tension.

References

4. Tessier P. Total dermal mastopexy associated with the Biesenberger breast reduction—a 35 year experience. Presented at: The Congress of the Swiss Society of Breast Diseases; Lausanne, Switzerland, 1984