

The Limitations of Periareolar Mammoplasty

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Sir:

A 17-author article from Italy promotes the periareolar approach as an “all seasons” technique for multiple breast conditions.¹ This recommendation will surprise many plastic surgeons. Usually, the periareolar approach is recommended for mild breast ptosis.² For moderate and severe cases, the vertical and Wise pattern methods are preferred.²

Benelli³ popularized the periareolar method in 1990. However, it soon fell out of favor. A 2006 surgeon survey found that only 6% of respondents used this approach exclusively.⁴ This method had the lowest rate of surgeon satisfaction, and its representation among medical malpractice cases was disproportionately high in a 2004 review (62% of mastopexy claims).⁵

Measurements reveal that the periareolar technique produces no significant benefit in breast projection, upper pole projection, lower pole elevation, breast

convexity, or breast parenchymal ratio.⁶ It is often a skin-only resection.^{4,7} Parenchymal resection is needed for a lasting improvement in shape.⁶ Not only is the wrong tissue being removed, but it is also being removed from the wrong place—around the areola rather than from the lower pole.⁶ The skin resection is placed exactly where the skin envelope is expanded by an implant, maximizing tension on the areola.⁸ An oval skin resection produces a non-circular areolar border (Fig. 1).⁸

The authors use a round-block (purse-string) technique³ to minimize areolar deformity. However, permanent sutures have not proven successful in preventing areolar deformity and can be a nuisance for patients and surgeons after surgery.^{4,8} The authors do not report when they remove their bulky 2-0 polypropylene sutures. The tension can produce the unsightly “tomato breast” appearance.⁸ A persistent “starburst” appearance of the areola (Fig. 1) looks unnatural.⁸

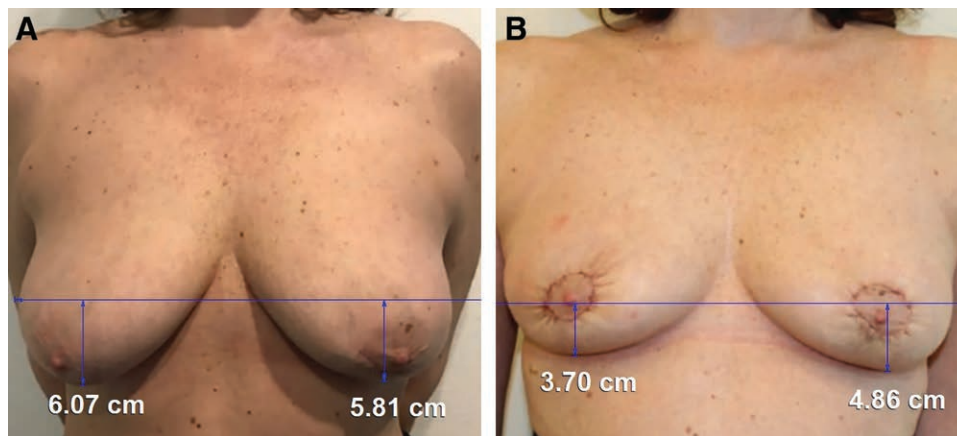


Fig. 1. This 59-year-old woman is shown before (A) and after (B) a periareolar breast reduction. The photographs have been matched for size and orientation using the Canfield 7.4.1 Mirror Imaging software (Canfield Scientific, Fairfield, N.J.). A 32.5 cm upper arm length was used for calibration. The lower pole elevation measures 2.37 cm on the right side and 0.95 cm on the left. There is noticeable pleating and lack of circularity of the areolar margins. The postoperative time is not provided. Adapted from *Plast Reconstr Surg Glob Open*. 2021;9:e3693.¹

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Instead of patient-reported outcomes in consecutive surveyed patients, Klinger et al¹ report visual analog scores and complications in a minority (1400/5028, 28%) of randomly selected procedures. The authors do not describe their randomization method. Typically, an inclusion rate of at least 80% is needed to qualify as evidence-based medicine and avoid selection bias.⁹ Most of the procedures (58%) were breast-conserving lumpectomies,¹ which are not normally included in mastopexy studies because the indications and objectives are different.

Spear et al¹⁰ reported the results of their outcome study of augmentation/mastopexies, including 74% of patients

Table 1. Comparison of Mammaplasty Methods

Parameter	Periareolar	Vertical
Lower pole elevation ^{6,11}	+	+++
Increase in breast projection ^{6,11}	0	+
Increase in upper pole projection ^{6,11}	0	+
Increase in breast convexity ^{6,11}	0	+
Increase in breast parenchymal ratio ^{6,11}	+	+++
Nipple elevation ^{6,11}	+	+++
Nipple circularity ^{6,8}	+	+++
Learning curve ^{1,4,6}	Long	Short
Sutures ^{1,8}	Permanent	Dissolving
Patient satisfaction ^{10,12,13}	+	+++
Surgeon satisfaction ⁴	+	+++
Medicolegal risk ^{4,5}	+++	+
Vertical scar	None	Yes
Lower pole tightening ^{6,8}	0	+++
Areola tension ^{4,6,8}	+++	0
Areola scar quality ^{1,4,6,8}	+	+++
Periareolar pleats ⁸	+++	0
Suitability for moderate or severe ptosis ^{1,2,6,8,13}	0	+++

treated with periareolar mastopexies. The authors were surprised by the “unimpressive” scores assigned to photographs evaluated by blinded reviewers with only 4 of 30 results rated as excellent. Over one-half of the surveyed women requested a revision. The rate of ptosis “relapse” (ie, inadequate correction) after mastopexy is also comparatively high (9.1%) among the 28% subset of patients selected for reporting of complications by Klinger et al.¹

Usually, articles reporting periareolar mastopexy include women treated with breast implants.^{1,6} Breast implants make any mastopexy technique look better. Only one set of photographs demonstrate a mastopexy in a woman treated without implants or fat injection. The photographs are not standardized. No measurement data are provided.

The most favorable comparison depicts a 45-year-old woman before and after augmentation combined with periareolar mastopexy. Her before image shows a ptotic, deflated breast. The after photograph was reportedly taken 4 months after surgery. However, small suture holes along the areola margin have not healed. There is still visible pleating around the areola. No frontal images accompany these lateral photographs. The authors use the label “stenotic” breasts, but the left breast does not appear constricted; the skin envelope is loose and widely-based.

Does an improved lift and avoidance of an areolar scar deformity justify an additional vertical, and possible (short) horizontal, inframammary scar? Only measurements^{6,11} and patient-reported outcomes^{10,12,13} can provide an answer. Comparisons favor the vertical mastopexy (Table 1).⁶

Tellingly, the authors rarely use this operation for breast reduction.¹ The one example they offer does not

indicate the follow-up time and demonstrates excessive pleating that is unlikely to resolve (Fig. 1). Lower pole elevation is minimal. The breasts appear deflated and wide, owing to the absence of a midline resection to tighten the lower pole and provide conicity. (This problem is shared by the “no vertical scar” mammaplasty).⁶

If the objective is to lift the breast, the geometry of the approach must fit with this objective. The vertical augmentation/mastopexy has the geometric foundation⁶ and both measurement data¹¹ and outcome data¹³ to support it as a superior “all seasons augmentation/mastopexy.”¹³

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DISCLOSURE

Dr Swanson receives royalties from Springer Nature (Cham, Switz.).

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