
Techniques in Cosmetic Surgery

Breast Capsulorrhaphy Revisited: A Simple Technique for Complex Problems

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Implant malposition without capsular contracture is a common problem that has received little attention. Malposition of the implant in the inferior, lateral, or medial direction can be corrected predictably and relatively simply with capsulorrhaphy and mirror-image selective capsulotomy. In addition, capsulorrhaphy can be used to create a smaller pocket to preserve anterior projection and prevent lateral and inferior displacement when changing to a smaller implant. Eleven patients underwent capsulorrhaphy for either implant malposition or implant size reduction. Improved appearance and symmetry of the breast was accomplished in all patients without increased complications. (*Plast. Reconstr. Surg.* 115: 296, 2005.)

Since the introduction of breast capsulorrhaphy in 1986 by Drs. Spear and Little and their publication in 1988,¹ only one reference to this topic has been made.² With nearly 3 million breast augmentation procedures performed to date in this country, breast implant malposition without capsular contracture is a clinical entity that is underdiagnosed and undertreated. There is also a significant population of patients who desire a change to a smaller implant size. By placing a smaller implant into an existing larger pocket, projection is diminished, medial fullness is diminished,

and lateral displacement occurs on recumbency. Capsulorrhaphy, as described below, is a predictable and effective method to recontour the shape and size of the implant pocket, resulting in better shape and appearance of the breast.

METHODS

The patient is marked in the sitting position. Simulation of the capsulorrhaphy is performed digitally and then marked. The patient is then placed in a supine position and the process is repeated. The lines are then connected in a single curvilinear line. The implant is manipulated away from the proposed line of capsulorrhaphy to check the tightness or turgor of the capsule. In most cases, a decision to perform a mirror-image selective capsulotomy is made. This is especially beneficial when performing a lateral or inferior capsulorrhaphy. I prefer general anesthesia. The breast implant is approached through existing incisions. Once the implant is removed, the anterior capsule is tattooed percutaneously with a needle and methylene blue at the previously marked external line. A line is drawn along the margin of the capsule. If a capsulotomy is to be performed, it is done before performing the capsulorrhaphy. A 2-0 Ethibond running suture is used as a single layer to plicate the anterior capsule to the posterior capsule equidistant from the capsular margin. The suture is begun well outside the previous tattooing and gradually wider bites are taken until the area of tattooing is reached, then gradually smaller bites are taken

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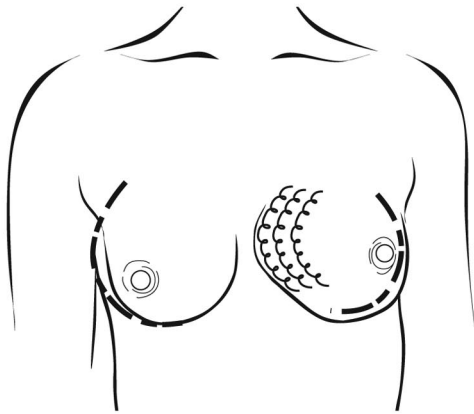
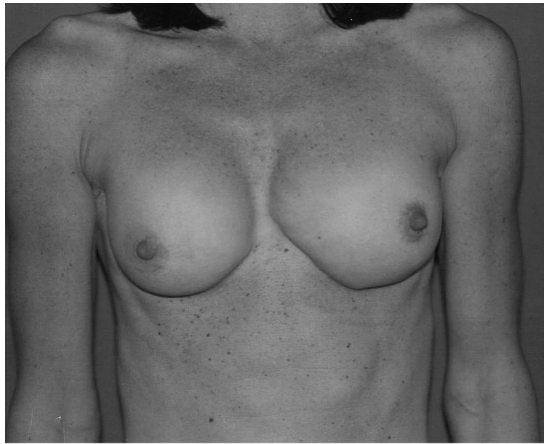


FIG. 1. (Above) Preoperative view of a 36-year-old woman who 2 years previously had undergone breast augmentation with obvious medial displacement of the left implant. She also had capsular contracture on the right breast. (Center) The surgical plan included bilateral lateral capsulotomies, implant exchange to 360-cc, smooth, moderate-profile silicone implants, and a left medial capsulorrhaphy. (Below) Four-month postoperative view.

at the end to ensure a smooth transition. A sizer is placed and the result is evaluated. Slight irregularities are treated with single interrupted sutures and undercorrections are treated with an additional row of suture. There is no need to take purchase of the deeper

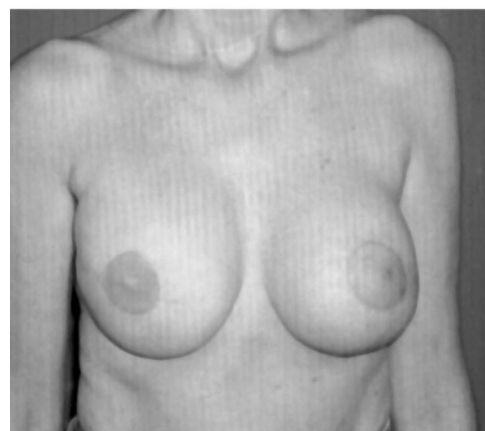
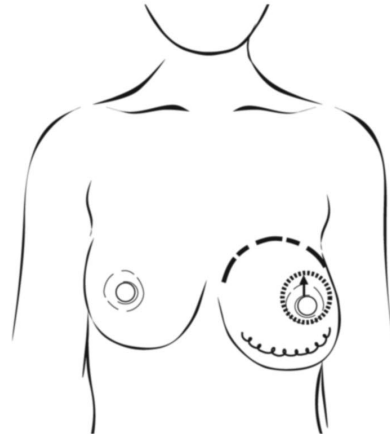
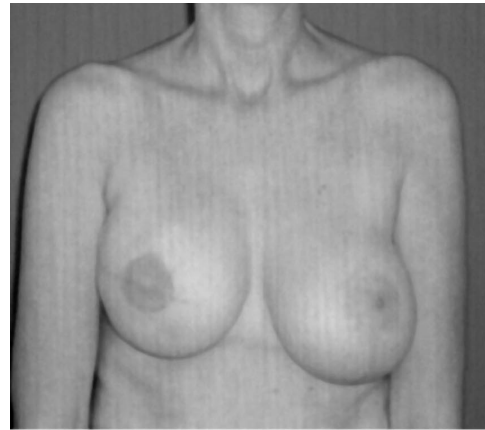


FIG. 2. (Above) Preoperative view of a 47-year-old woman who 2 years earlier had undergone right skin-sparing mastectomy, immediate reconstruction with expander, and left mastopexy. She developed recurrent ptosis and lowering of the inframammary crease on the left breast. (Center) The operative plan included left breast inferior capsulorrhaphy, superior capsulotomy (mirror image), and circumareolar mastopexy. (Below) Three-month postoperative view.

intercostal tissues, as this adds nothing to the strength and adds only to postoperative pain. The only exception is when performing a medial capsulorrhaphy, when it is important to take a bite of the parasternal periosteum. With each suture manipulation, it is important to

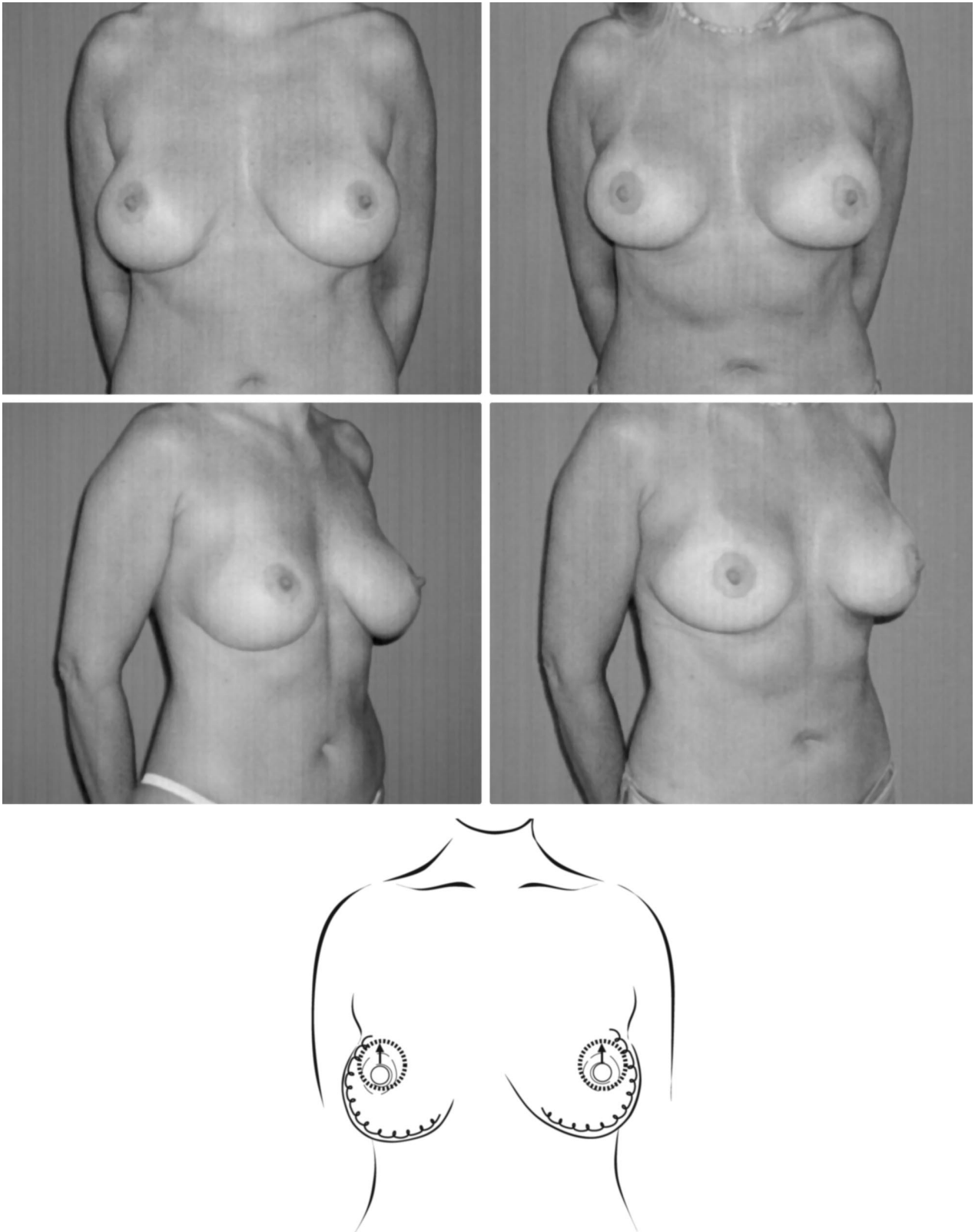


FIG. 3. (*Above, left and center, left*) Preoperative views of a 38-year-old woman who 3 years previously had undergone breast augmentation with smooth round saline implants (270 cc filled to 310 cc). The patient wanted her breasts to look smaller and yet “more perky” without a vertical mastopexy scar. (*Above, right and center, right*) Three-month postoperative views. The distance from the inframammary crease to the nipple has been shortened. (*Below*) The surgical plan included bilateral lateral and inferior capsulorraphy, circumareolar mastopexy, and implant exchange to 250-cc, smooth, round high-profile silicone implants (McGhan style 20).

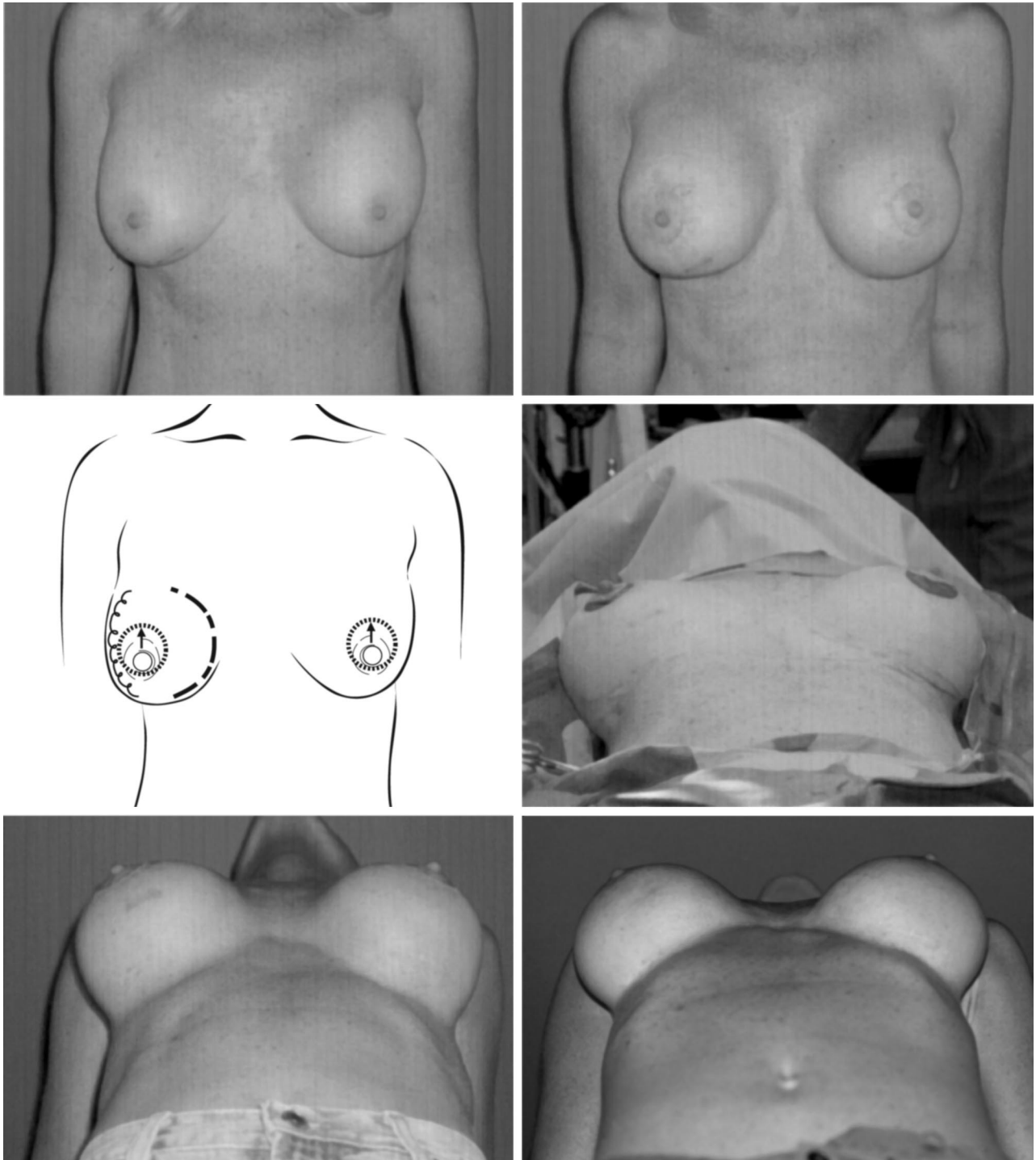


FIG. 4. (Above, left) Preoperative view of a 42-year-old woman who 8 years earlier underwent breast augmentation with saline implants complicated by severe capsular contracture and lateral displacement of the right breast. (Center, left) The operative plan included right lateral capsulorrhaphy and medial mirror-image capsulotomy, bilateral circumareolar mastopexy, and implant exchange from an anatomic, textured, 330-cc McGhan implant to a 425-cc, smooth, round McGhan style 20 high-profile silicone implant. (Center, right) Intraoperative view before capsulorrhaphy. (Above, right, and below, left) Two-month postoperative views. (Below, right) Eight-month postoperative view.

evaluate the patient with a sizer in place in both sitting and supine positions. A final inspection is performed of the breast with a sizer

in place, then with the implant in place. The wound is closed in three layers, and then dressed with gauze and Tegaderm. The area of

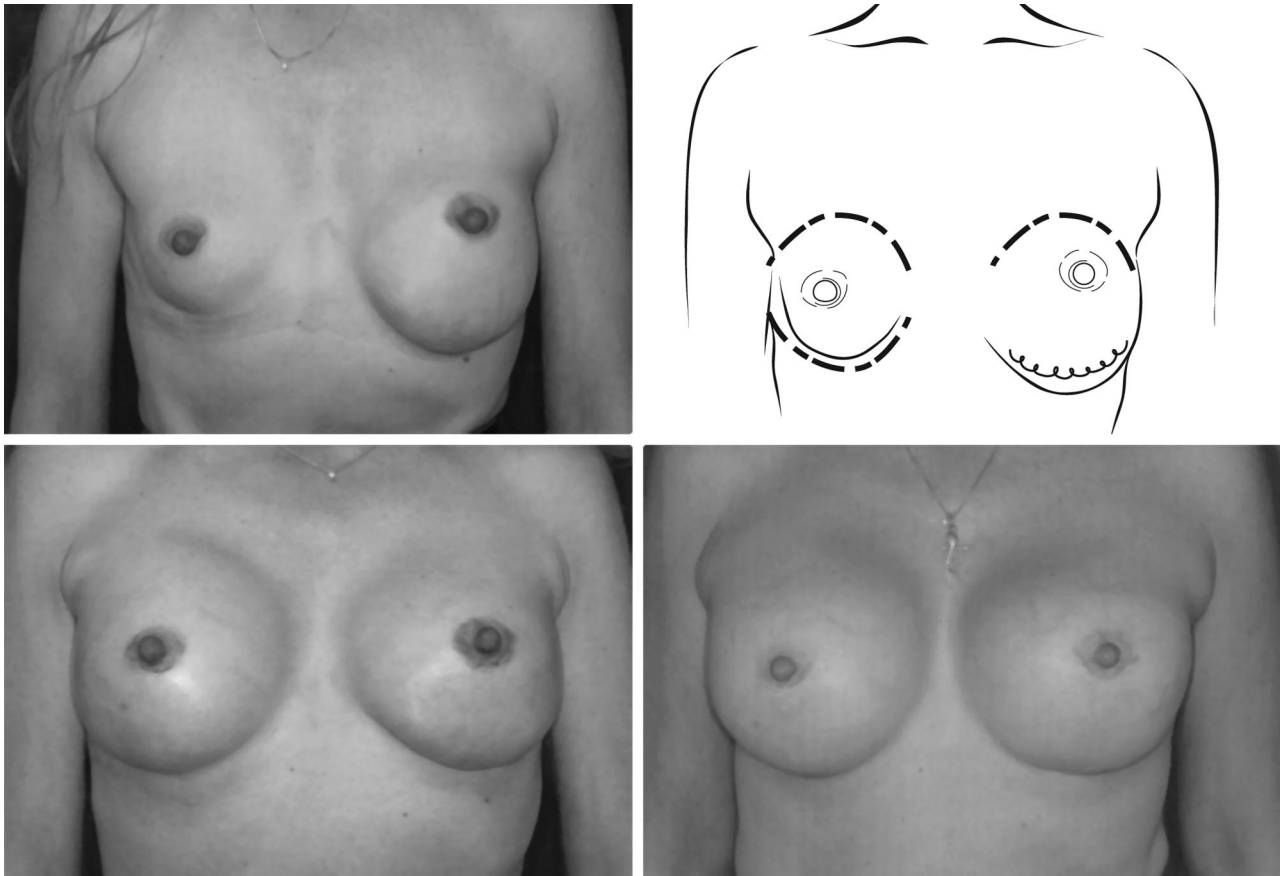


FIG. 5. (Above, left) Preoperative view of a 41-year-old woman who underwent breast augmentation 4 years previously with 325-cc, smooth, round saline implants. The patient is shown 2 weeks after deflation of her right implant. The left implant was inferiorly displaced from the time of her surgery. (Above, right) The surgical plan included right implant replacement, left inferior capsulorrhaphy, and superior (mirror-image) capsulotomy. (Below, left) Two-month postoperative view. (Below, right) Eight-year postoperative view.

capsulorrhaphy is then taped with 1-inch and 2-inch foam tape reinforced with Transpore tape. This is left in place for 1 week. The patient is initially wrapped in a 6-inch Ace bandage overnight, then placed in an underwire brassiere to be worn day and night for 3 to 4 weeks. Light implant stretching exercises are started 2 weeks postoperatively, with an emphasis toward the area of capsulotomy.

RESULTS

This technique was used on 11 patients between March of 1998 and December of 2002 (average follow-up, 10 months). The results have been consistently good (Figs. 1 through 5). No complications have been identified.

DISCUSSION

As more breast augmentations are performed, there will continue to be a need for reoperative breast surgery. Capsulorrhaphy is a powerful tool that has received very little atten-

tion; in fact, there has been only one reference in the literature since 1986. Adhering to the following principles ensures a predictable result. Performing a mirror-image selective capsulotomy takes the tension off of the line of plication of the capsulorrhaphy. Tape reinforcement for 1 week after the capsulotomy not only helps take the tension off the repair but also obliterates the dead space. Lastly, it is important to be very precise in the placement of the sutures, very patient with the placement of the sutures, and objective in the evaluation and placement of the sutures. This technique requires multiple sizer placements and table sitting adjustments to "get it right," but the reward of a beautiful result is worth it.³

CONCLUSIONS

Breast capsulorrhaphy is a powerful technique that is safe and reliable for the repair of breast implant malposition and improving the

results in reoperative breast surgery. It is a technique that has had little attention in publications and, thus, is probably underutilized.

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