

CLINICAL TECHNIQUES

B Mastopexy: Versatility and 5-Year Experience

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21 Introduction: Many women are searching for restoration of a younger outward physical appearance. Mastopexy with or without augmentation may help improve or restore a woman's breast shape at the price of scars on the breast. We describe our experience with the versatility and improved aesthetic result using the B mastopexy technique, which provides a natural-appearing breast contour with less scarring.

Materials and Methods: A retrospective review was performed on 40 patients who underwent B-type mastopexy from June 2000 through August 2005. Our technique is described in detail including our approach when simultaneous augmentation is performed. Patients undergoing simultaneous augmentation to give additional fill to the breast typically received an implant size ranging from 240 mL to 300 mL.

Results: B mastopexy was performed on 40 patients with simultaneous augmentation performed in 27 patients. There were no complications, and only 1 patient underwent scar revision. All patients were satisfied with final outcome.

Conclusion: B mastopexy provides an approach to restoring a naturally appearing breast contour and a more youthful look when augmentation is performed simultaneously. The versatility and limited scar makes this our procedure of choice.

B Mastopexy: A Versatile Approach to Breast Lifting

Many women are searching to restore a younger appearance to their breasts. Whether it is as a result of loss of breast volume, ptosis due to postpartum atrophy, or simply the normal aging process, breast ptosis is a common condition that women frequently seek to improve. While women with pseudoptosis or mild ptosis may be satisfied with

breast augmentation alone, mastopexy is often indicated to obtain the desired lift when there is more significant ptosis. The disadvantage of choosing mastopexy over augmentation alone is the resulting scars on the breasts. Classic mastopexy produces a scar around the areola as well as a vertical scar extending from the areola down to a transverse scar in the fold beneath the breasts.

Various techniques have been developed over the years in an effort to minimize the extent of scarring. In 1974, Regnault¹ published the B mastopexy technique, which unites the vertical and horizontal scars into a single curving incision, thus eliminating the medial scar. This technique also may be used in breast reductions. We describe our experience with this procedure reviewing 40 mastopexy cases carried out over the past 5 years.

Materials and Methods

A retrospective review was performed on 40 patients who underwent B-type mastopexy from June 2000 through August 2005. The ages of the patients ranged from 21–54 years.

The consultation involved a discussion of B-type mastopexy for those patients who required shortening of the distance from the inferior margin of the areola to the inframammary fold.

Patients underwent extensive consultation related to risks, limitations, and benefits of mastopexy with or without simultaneous augmentation. The main different types of mastopexy, including periareolar, vertical (lollipop), Weis pattern vertical scar with a long horizontal scar (inverted T or anchor), and B mastopexy were discussed including the resultant scars on the breast. Patients were always advised that mastopexy procedures often fall short of ideal expectations. This was stressed to attempt to discourage patients with unrealistic expectations. Detailed before-and-after photos were reviewed. These pictures were selected to clearly show the nature and extent of the incisions as

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Figure 1. (A) Marking the distance from suprasternal notch to the nipple and inframammary fold. (B) Marking the distance of the medial aspect of the new nipple site from the midline (typically 10 cm). (C) Freehand drawing of the inverted T incision with the patient in the supine position. (D) Assessing the tension-free closure by infolding the skin over the index finger.

well as the resulting scars. Patients were educated that scars “look bad before they look good” and that it may take up to a year for scar maturation and final breast contour. Since most mastopexy patients also undergo simultaneous augmentation at our center, a thorough discussion of the limitations and risks of augmentation is discussed including the alternative of staged procedures.

It is recognized that it will take months for the breasts to fully settle and take on a pleasing shape. Therefore, patients are shown photographs of various stages of healing to help reassure them during their postoperative course, since the breasts will usually look quite distorted initially.

Candidates for B mastopexy were those who required shortening of the distance from the inferior margin of the areola to the inframammary fold. Those who did not

had the vertical mastopexy. Some patients chose the periareolar mastopexy because they did not want a scar beneath the nipple, but we do not recommend this procedure except in unusual cases such as tubular breast or in a patient requesting very large implants. The latter 2 procedures constituted about 20% of our mastopexy patients and are not included in this review.

Preoperative markings are performed with the patient in the standing position. The distance from the suprasternal notch to the nipple is measured and documented. The level of the inframammary fold is identified and marked on the anterior breast as an indication of the level to which the nipple is to be elevated (Figure 1A). The medial aspect of the new position of the areola is marked approximately 10 to 11 cm from the midline along the mid breast (Figure 1B). A 38-mm diameter line is marked around the nipple corresponding to the



Figure 2. Dermal infiltration using a mixture of 100 mL of normal saline, 25 mL of 1% lidocaine, and 0.25 mL of 1:1000 adrenaline.

new preserved areola. The patient is then placed in the supine position on the operating table, and a freehand B-type pattern is drawn (Figure 1C). Using the initial landmarks, a semicircular pattern is made around the nipple. The vertical and horizontal component of the mastopexy is created using a tapering curvilinear incision from the lower portion of the areola to the lateral breast crease. This results in a vertical closure that will be about 5 to 7 cm from the bottom of the areola to the inframammary fold. The medial component of the typical inframammary incision is thus eliminated. A simple maneuver is performed to assess closure tension by infolding the breast over the index finger (Figure 1D).

A modified tumescent infiltration consisting of 100 mL of normal saline, 25 mL of 1% lidocaine plain, and 0.25 mL of 1:1000 adrenaline is injected into the dermis in the area to be de-epithelialized using a 20-gauge 1-in. needle (Figure 2). If simultaneous breast augmentation is to be performed, an additional solution of 250 mL of normal saline, 50 mL of 1% lidocaine plain, and 0.5 mL of 1:1000 adrenaline is injected using a 20-gauge 3 1/2-in. needle. When the implant is to be placed into a submuscular pocket, the tumescent solution is injected along the proposed axillary incision and then infiltrated beneath the pectoralis major muscle. To facilitate this, the muscle is gently grasped and elevated to help position the needle into the correct plane. When the implant is to be placed subglandularly, the needle is passed without resistance into the plane above the pectoralis major muscle, and the solution is injected to allow blunt dissection.



Figure 3. Creating a subglandular pocket using blunt dissection at the base of the vertical incision.

De-epithelialization is carried out using a sharp razor scalpel following injection of the tumescent fluid. During this process, the skin edges are undermined 3 to 4 mm to allow closure of the skin without tension. Timing of de-epithelialization with simultaneous augmentation is based on the placement of the implant. De-epithelialization is typically performed after implants are placed in the submuscular position, whereas we prefer to place subglandular implants after de-epithelialization.

If the patient has elected to undergo simultaneous submuscular breast augmentation, we prefer a transaxillary endoscopic approach to place the implant. The endoscope is used to aid in visualization as the pectoralis major muscle is divided from the sternum and ribs. After developing a pocket, implant sizers are used to ensure best possible symmetry. At this point, de-epithelialization is performed. During dermal closure, the sizer can then be displaced up into the pocket or partially deflated to allow approximation with minimal tension. If the closure demonstrates too much tension, this can be corrected by inserting a smaller implant or by reducing the final fill volume. Microliposuction of the breast tissue may also be performed to reduce the breast volume and aid in closure.

Subglandular placement of breast implants is carried out with a somewhat different technique. De-epithelialization is performed initially, after which an incision is made through the de-epithelialized dermis at the base of the vertical limb of the mastopexy. Subsequently, a pocket is made above the pectoralis major muscle using blunt dissection



Figure 4. Placement of implant sizer to determine the best symmetry.

(Figure 3). Sizers are placed to determine best symmetry and to ensure a tension-free closure (Figure 4). Finally, the implant is placed prior to closure of the lower vertical limb, although complete filling is delayed until key fixation sutures have been placed to facilitate the closure.

A tension-free closure is critical for optimal healing and avoiding the formation of wide scars. We undermine the skin edges about 3 to 4 mm and perform a dermal closure to avoid any tension on the skin. During dermal closure, the nipple is brought into its new position based on the pedicle of dermis. Deep dermal closure is accomplished by rotating the lateral flap down and medially to create the curvilinear scar that results (Figure 5A). The deep dermis is approximated using 2-0 and 3-0 Monocryl in a simple interrupted fashion. The key suture is at the junction where the apex of the vertical incision meets the areola because this is the area of greatest tension. Subcutaneous dermal closure is performed with interrupted 4-0 Monocryl. Final adjustments prior to skin closure may include micro liposuction or additional de-epithelialization if needed. After dermal closure, 5-0 or 6-0 plain catgut is used to approximate the areola to the adjacent skin edge and the lower skin incisions in a continuous fashion (Figure 5B).

Postoperative care is minimal. The breast is supported with a porous soft elastic tape. The tape is removed in 7–10 days and reapplied to the incisions for an additional 1–2 weeks. A surgical bra is worn for comfort, and an underwire bra is avoided until the implants have settled into position. Photos are taken at 2 or 3 months (Figure 6).

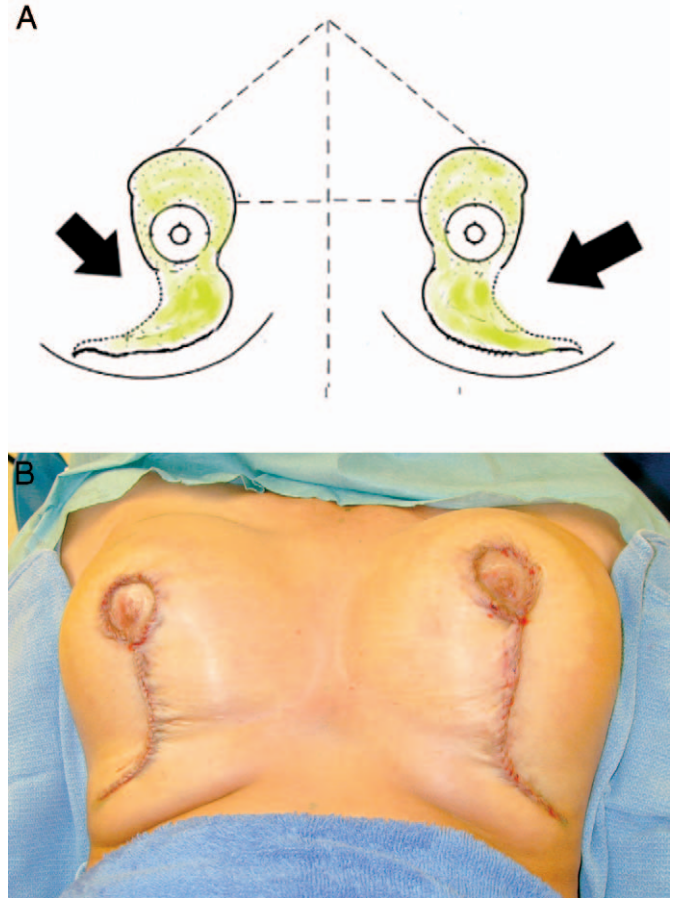


Figure 5. (A) Illustration demonstrating the rotation of the lateral flap down and medially to create the resulting curvilinear scar. (B) Immediate postoperative result after B mastopexy with subglandular breast augmentation.

Results

B mastopexy was performed on 40 patients in approximately the past 5 years by the senior author. Twenty-seven of the patients underwent simultaneous breast augmentation. Submuscular placement was performed in 24 patients. Subglandular placement was performed in 3 patients. The average implant size was 260 mL. There was no infection, hematoma, skin necrosis, or other complication, and only 1 patient required scar revision. Overall, the patients were satisfied with the fill and/or lift obtained, and no mastopexy revisions were performed.

Discussion

Mastopexy results in scars on the breast. Some women cannot live with the thought of a scar on the breast, while others are willing to bear these to obtain a more desirable breast shape. Periareolar mastopexy often results in a breast with a bottoming-out appear-

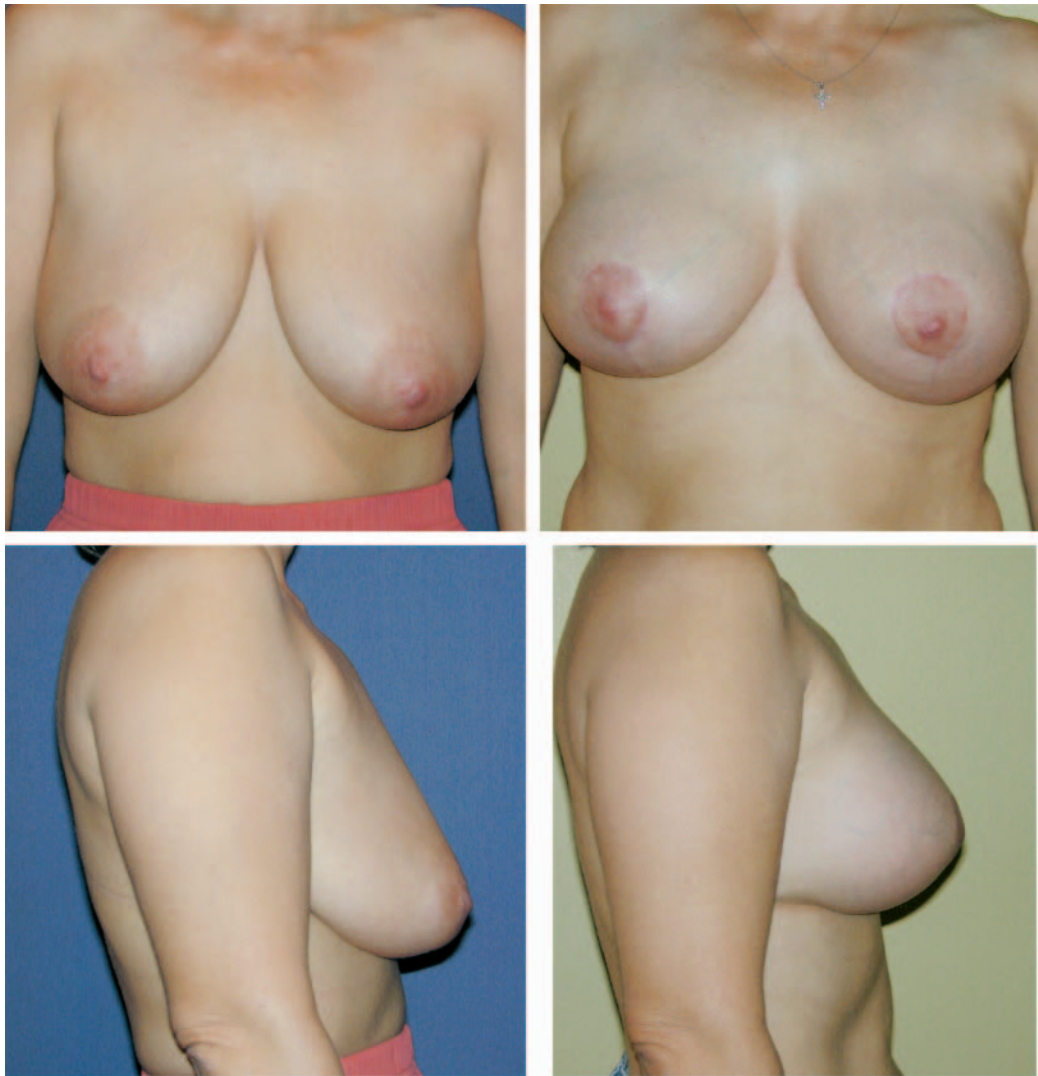


Figure 6. Before and 2 months after B mastopexy with subglandular breast augmentation.

ance and puckering. The inverted-T technique results in a better-looking breast, but there is more scarring. The B mastopexy technique offers elevations through both a vertical and horizontal component with elimination of the medial scar. It provides good projection and ensured nipple viability, with great flexibility and relatively short operating time.² The B-type incision is versatile and can be used for mastopexy and breast reductions. Frey³ and Giovandi⁴ reported that secondary corrections are less frequent, and there is a better transposition of lateral excess tissue using the B-shaped skin incisions. The principle of the procedure is to create a rotational flap in which the elevated epidermal flap is rotated around the nipple.

In a 12-year review of more than 1000 cases by Parentaenteau and Regnault,⁵ the B technique proved to be very adaptable to various deformities and easy

to use for all forms of breast ptosis and hypertrophy.⁵ Regnault^{6,7} has also described no increased incidence of hypertrophic scarring or loss of nipple sensation.

The patient's expectations and desired results must be evaluated carefully. Most of our patients (67%) not only desired lift to their breasts but also desired a fuller breast. Baran⁸ and Brink⁹ regard the combination of augmentation plus mastopexy to have a higher patient acceptance in those patients who desire a better or bigger breast shape. When performing augmentation and mastopexy simultaneously, we currently place all implants below the muscle through an endoscopic transaxillary approach. Implant size varies based on patient choice, but we discourage large implants and usually use a size range of 240–300 mL. The average implant size in this study was 260 mL.

Conclusion

The B mastopexy is a very versatile technique that allows simultaneous submuscular or subglandular breast augmentation. Although we do not perform simultaneous liposuction, the surgeon may consider this to improve any excess lateral breast tissue or fat. Careful patient selection is necessary along with a full explanation of expected course and outcome. We find this the technique of choice for optimal breast shape and less scarring. All cases were performed at the Plastic Facial and Cosmetic Surgery Center.

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