Maintaining Shape in Mastopexy

The authors describe a mastopexy technique that is effective in treating small and mildly ptotic breasts to extremely large breasts and maintains breast shape over time. Tissue that in more traditional procedures has frequently “bottomed out” is moved into the upper pole and supported with a sling of pectoralis muscle. (Aesthetic Surg J 2003;23:391-392)

Current mastopexy and reduction mammoplasty techniques have evolved in an effort not only to improve breast shape and scars but also to maintain breast shape. The test of time has shown that past techniques have failed to accomplish this. Careful examination of my own mastopexy results and observation of the results achieved by others have demonstrated a basic common flaw: the inferior-pole parenchyma will gravitate downward, and skin tension alone is inadequate to maintain shape.

Until I met Ruth Graf in 1996, I used an inverted-T incision with a Wise pattern for breast reduction and mastopexy. Dr. Graf introduced me to a maneuver in which tissue that has frequently bottomed out in other techniques is moved into the upper pole and supported with a sling of pectoralis muscle. In Dr. Graf’s technique, the pectoral loop supports the breast parenchyma in the upper pole, and breast shape is maintained over time.2,3 Further refinements involving the vertical incision with redundant skin excised through a round block excision have been described by Benelli.4 Here we will present our technique for improving breast shape and maintaining upper-pole fullness.

Nipple-Areolar Complex

Measure the future superior nipple-areolar edge 20 cm from the mid clavicle (Figure 1). Establish the inframammary fold and mark a point 2 to 4 cm above it, at the breast midline. Pinch the skin to determine how much skin to excise (similar to the lateral and medial displacement of the breast as described by Lejour3), and draw lines through these points to the breast midline to the point marked above the inframammary fold. Establish a point 6 to 8 cm above this point, depending on the anticipated breast size; these lines will represent the vertical closure. Additional redundant skin will be removed in the circumareolar closure. You can vary these measurements to individualize the technique.

Chest Wall-Based Flap

After carrying out deepithelization, create the chest wall-based flap. It is imperative to extend the incision through the parenchyma to the pectoral fascia and to maintain an adequate base for the flap. Make the initial incision into the parenchyma on vertical plane; 2 to 3 cm of parenchyma must be preserved to provide adequate columns for closing. Next, direct the incision in the parenchyma away from the flap to maintain the base.

Pectoral Sling

Elevate the pectoral flap, 3-cm wide, beginning at the cephalic base of the breast flap, and make it long enough for the breast flap to pass through. (It should be only partial-thickness so that the inferior fascia are left unviolated.) Then undermine a subglandular space to the level of the second intercostal space to accept the vertically mobilized flap. Close the donor site of the bipedicled loop with several sutures; this will leave the breast parenchyma on top of the pectoral muscle. Suture the flap onto the pectoral fascia with a running stitch, starting inferolaterally, to encourage the flap to seek a supromedial home above the pectoralis fascia. Use lateral and medial resections to excise excess parenchyma. Close the columns with several 2-0 permanent sutures, which will aid in the support of the upper pole. Close the remainder of the skin and subcutaneous tissue with smaller deep sutures of absorbable material. The closure around the nipple is described by Benelli.4 There are no limitations on the type of breast that can be improved with this technique. Breasts ranging from...
Second Thoughts

Small and mildly ptotic to extremely large can be corrected without the bottoming out seen in more traditional procedures. An inverted-T, vertical, or oblique incision can be used to excise redundant skin. In most patients, a smaller amount of skin must be excised, and a vertical or oblique incision is adequate. Patients with large breasts requiring significant reduction or older patients with excessive skin laxity or significant weight loss may still benefit from an inverted-T incision, although we use the inverted-T less and less often.

The efficacy of mammographic breast examination after this procedure has been debated. In our postoperative patients, mammography has easily identified the flap, and the sling does not impede identification of mammographic changes. If a malignancy does arise, the tissue plane beneath the pectoralis, containing the major lymphatic vessels, has not been violated. The posterior fascia of the muscle is not entered, and all of the breast parenchyma remains cephalad. Surgery on the breast to achieve reduction or mastopexy alone has 3 goals: (1) better shape, (2) appropriate nipple-areola position, and (3) resection of redundant skin. The procedure described here, and in previous publications, accomplishes these goals and has been performed safely (Figure 2). Skin marking and skin excision are important, but remember that skin excision should be for redundant skin only and not for parenchymal shaping.

References


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