Lower-pole Shaping of the Breast by Means of a Double Glandular and Cutaneous Advancement Flap: The “Arrow” Flap

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Summary: Lower-pole shaping of the breast is sometimes a difficult challenge when performing vertical mammoplasty. The problems mostly encountered are too large breast bases, persistent dog ears, which require long incision, and poor breast projection. We report a modification of the technique that we use in breast reduction so as to better shape the lower pole and to reduce revision surgery.

SURGICAL TECHNIQUE

Reduction mastoplasty is planned using the modified Lejour technique, with a prolongation of the vertical scar downward, about 2 cm above the submammary fold (Fig. 1).

After de-epithelialization is performed superiorly to inferiorly in a 1-piece en bloc resection, the upper pole of the breast is released from the pectoralis fascia, undermining the Chassaignac space between gland and muscle fascia. The nipple flap is then transposed to its new position. Excision of the amount of glandular tissue that was previously planned is performed after preparation of the medial and lateral pillars of the breast.

The lateral pillar of the gland is tailored to be sharply pointed, resembling an arrow, with the head of the arrow looking medially toward the inframammary fold.

The arrow will have as base the whole basis of the lateral pillar, and it will be gently pulled as medially

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as possible, drawing on the medial pillar the exact amount of glandular tissue to be excised.

The medial pillar of the breast is then cut in a 90-degree fashion with the head of the angle looking medially, excising the extra amount of gland to be removed.

The lateral pillar will then be sutured, in a double-breast fashion, with Vicryl 3/0 single stitches to the previously shaped medial pillar, thereby making a kind of internal bra (Fig. 2). Attention must be paid not to overpull the flaps medially. Excessive tension could be dangerous for the vascularization of the flaps.

The skin envelope is tailored in the same manner as that of the glandular tissue, making a sort of laterally based triangle with its edge (arrowhead) looking medially.

The suture of the gland and the overlying skin in a double layer allows us to better shape the inferior pole of the breast.

In this way, we obtain a double-bra effect, the first one made by the gland and the second one provided by the skin envelope. Both of them are sutured again in a double fashion, with the arrowhead looking medially.

**DISCUSSION**

Inferior-pole shaping of the breast in case of reduction mammoplasty or mastopexy could be some-
times difficult to achieve, mostly in case of severe hypertrophy or gigantomastia.

Several methods of lower-pole contouring have been proposed by many authors using different methods, such as autologous materials,1,2 heterologous materials, or surgical methods such as suction-assisted lipectomy.3

The main advantages of the techniques proposed are lower-pole support and shaping, although some of the methods described, mostly the allogenic ones, can have the disadvantages of increased infection, seroma, and the high cost associated with the use of mesh.

The modification of the technique we describe has, in our opinion, several advantages: a precise and balanced contouring of the submammary fold that is essential in vertical mammoplasty, the absence of persistent dog ears, and after revision surgery, a good and persistent projection of the breast that does not require secondary mastopexy (Figs. 3 and 4).

In our experience, this technique is successful both in large ptotic breasts and in case of mastopexy. Results at 18 months still show a very good breast projection and a well-maintained tight base of the breast.

Fig. 4. Detail of the resulting scar at 8-month postoperative stage. This scar can be easily hidden by any bra.

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REFERENCES
1. Losken A, Holtz DJ. Versatility of the superomedial pedicle in managing the massive weight loss breast: the
rotation-advancement technique. *Plast Reconstr Surg.* 2007;120:1060–1068.

2. Selber JC, Clemens MW, Oates S, et al. Autoderm: an alternative bioprosthetic for breast reconstruction. *Plast Reconstr Surg.* 2013;131:985–987.

3. Akyurek M. Contouring the inferior pole of the breast in vertical mammoplasty: suction-assisted lipectomy versus direct defatting. *Plast Reconstr Surg.* 2011;127:1314–1322.