Lateral pillar suspension in vertical-scar mammmaplasty
ADM provides an option to achieve closure when prosthetic mesh cannot be used because of potentially contaminated abdominal wall defects. Further investigation on the persistence and durability of ADM is warranted.

References


Lateral pillar suspension in vertical-scar mammoplasty

Vertical scar mammoplasty is an elegant technique that succesfuly combines the two concepts of minimal scar formation and a satisfactory breast shape. It was first described by Dartigues in 1925 for mastopexy and extended to breast reduction by Arie in 1957. Later it was repopularised by Lassus in 1970. In the early 1990s Lejour modified the vertical scar technique originally described by Lassus in order to improve the scar quality and to adapt it to all breast reduction procedures. She also added liposuction as a standart adjunct procedure. Numerous authors have evaluated late postoperative results in general and suggested the descent of the breast tissue and the loss of upper pole fullness as the most important and annoying complications encountered during the late follow-up period. To overcome the effect of the gravitational forces on the breast and the bottoming out phenomenon, many modifications were described and published in the literature. Exner and Scheufler introduced the dermal suspension flap in vertical-scar reduction mammoplasty in 2002. Graf et al. published the thoracic wall flap technique in 2003 and Ritz et al. introduced fascial suspension mastopexy in 2006.

We have defined the major drawbacks of breast reduction surgery and vertical mammoplasty as the remaining lateral fullness and the bottinging out deformity in the late postoperative period. Here we have designed a modification of the technique described by Lassus.

Markings and dissections were performed almost exactly as Lassus has described. After the de-epithelialisation process and preparation of lateral and medial pillars, the most inferior end of the lateral pillar triangle is tightly plicated to the periostium of the rib next to the inferomedial border of the sternum using 0 Vicryl (Ethicon, Somerville, NJ, USA) suture with a round needle. Before suturing, the inferior end of the lateral pillar is brought to its new position with the help of forceps, thus the new projection and shape of the breast were tested and necessary resections from medial and lateral pillars were completed. Resection was performed mainly from the medial pillar, and the thickness of the lateral pillar was adjusted accordingly. After the plication suture was placed and secured in its place, the medial border of the lateral pillar triangle, which runs on an oblique line from the nipple to the medial sternal border, is sutured to the lateral border of the medial pillar. At that stage, the new conical shape and enhanced projection of the breasts were evident. Suturing up the pedicle on to the chest wall as Lejour has described was regarded as unnecessary, thus it was not performed. The rest of the procedure was undertaken according to Lassus’ method.

The plicated lateral pillar structure has a function analogous to the Lockwood ligament of the eyelid and, similar to a fishnet, it supports the weight of the mammary tissue. The upper pole of the breast maintains a good volume and the vertical scar is located above or at the level of the new inframammary crease with minimal breast descent. In addition, the lateral fullness of the breast is diminished and a much more homogenous appearance is achieved.
According to Lassus’ description, the vertical scar mammoplasty procedure is roughly based on folding the breast tissue on itself and pushing it upwards. Owing to this manoeuvre the vertical suture plane of the subcutaneous tissues and the vertical suture plane of the skin flaps overlap each other. This overlapping phenomenon diminishes suture strength and facilitates the bottoming out deformity. When lateral pillar suspension is applied, the plane consisting of the breast tissue folded on itself lies on an oblique line running from the xiphoid process to the nipple-areola complex. Thus a stronger connection is achieved between the pillars facing each other, and the breast obtains a conic shape with its nipple at the highest point which definitely enhances its projection. In addition, because of this suspension, the tension exerted on the skin flaps is diminished and this results in a relatively inconspicuous fine-line scar.

It is possible to use this association of techniques for mastopexy only, in which there is no excess breast tissue to be removed, or for breast reductions, in which the resection of excessive breast tissue is done mainly from the medial pillar.

The achievement of a good aesthetic result in mammoplasty requires an adequate shape, nice skin coverage, and a nipple-areola complex on the top of the breast projection. With the traditional techniques, the breast was shaped with dermal sutures that would relax over the years, resulting in the descent of all breast tissue.

We observed minimal breast descent when performing the vertical scar technique associated with lateral pillar suspension, providing a better, long-term, aesthetic outcome. With this technique, breast tissue is divided and repositioned where desired, maintaining breast shape with the internal structures, with no tension over the dermal sutures.

References