

AN AREOLAR APPROACH TO REDUCTION MAMMAPLASTY

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IN a survey of the development of mammoplasty techniques, Stephenson (1972) lists 397 articles on the subject. All of the methods so far published involve 1 or more scars on the skin of the breast and these detract from the results. We wondered if it would be possible to have no skin scars by avoiding the skin excision necessary to create a "skin brassiere", and rely instead on the natural elasticity of breast skin to adapt to the reformed and reduced shape of the breast tissue itself. Obviously there are limits beyond which skin excision is essential, but would the method be feasible in small ptotic breasts or mild degrees of hypertrophy?

Of prime importance was the blood supply of the breast and in the 10 patients in whom we have used the technique, arteriography of the breast region was carried out. This confirmed the work of Salmon (1936) and Maliniac (1943); in each case the internal mammary was of much greater calibre and seemed to be most responsible for the nutrition of the gland. The lateral thoracic and acromiothoracic arteries were also present but seemed to contribute more to the superficial circulation of the gland and skin, even though all the vessels anastomose with each other. The skin covering of the breast has a very rich subdermal plexus, separate from the circulation of the gland, in spite of several connecting branches. The nipples and areola area has a deep plexus

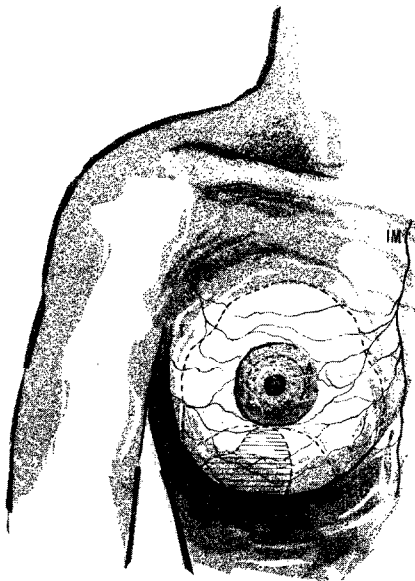


FIG. 1. Drawing illustrating the areolar incision (A), the extent of the undermining of the skin (B), the blood supply of the breast (IM: internal mammary; LT: lateral thoracic; AC: acromiothoracic arteries), the amount of breast tissue to be invaginated in cases of hypomastia and ptosis (IN) and the amount of tissue to be resected in cases of hypertrophy (RS).

deriving mainly from the internal mammary artery, with some branches perforating the pectoral muscles perpendicularly in the medial upper half of the breast (Figs. 1 and 2).

Since elasticity of the breast skin is essential, the 10 women selected for the operation were all under 40 and all active in sport.

TECHNIQUE

Under general anaesthesia, a circular, intra-areolar incision is made followed by the usual intradermal dissection for 1 to 2 cm. The level of undermining is then deepened to the junction of subcutaneous tissue and gland and is carried out mainly by blunt dissection. The extent of the undermining is shown in Figures 1 and 2. When the

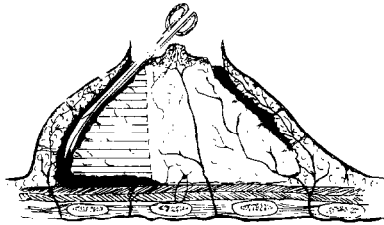


FIG. 2. Schematic drawing of a sagittal section of the breast, demonstrating the relation of the undermining and the resection of breast tissue with the blood supply of the breast.

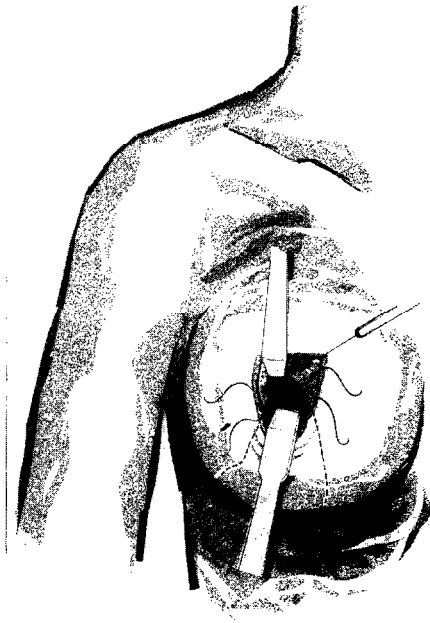


FIG. 3. Drawing illustrating the mastopexy after resection of the excess tissue in a case of hypertrophy.

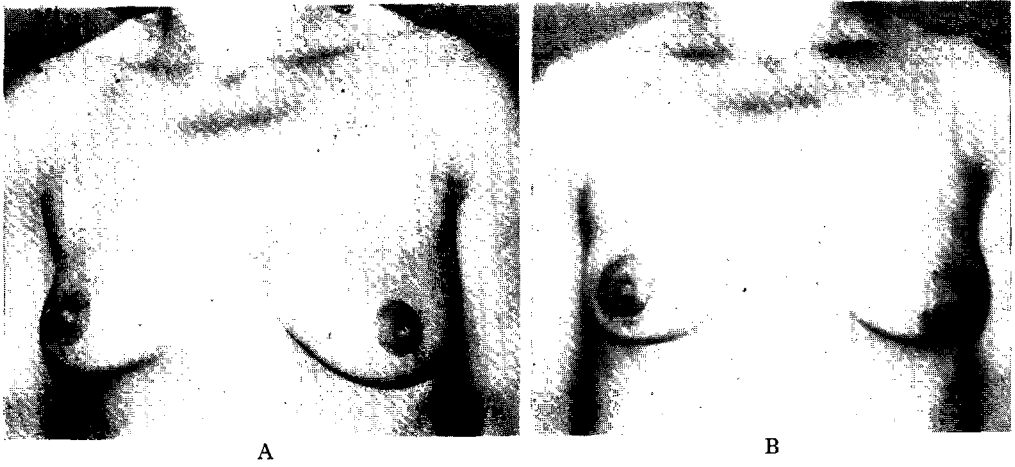


FIG. 4. A and B, Pre- and post-operative (2 months) appearance of a case of ptosis in a small breast. The breast tissue was invaginated and a mastopexy performed.

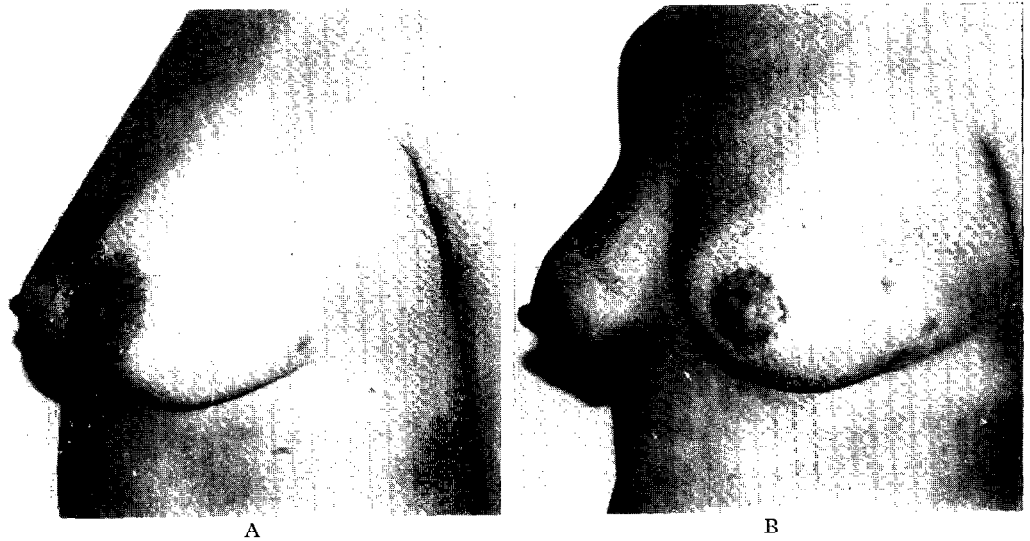


FIG. 5. A, Ptosis with mild hypertrophy. B, Post-operative result at 1 month. A small amount of breast tissue was removed and a mastopexy performed.

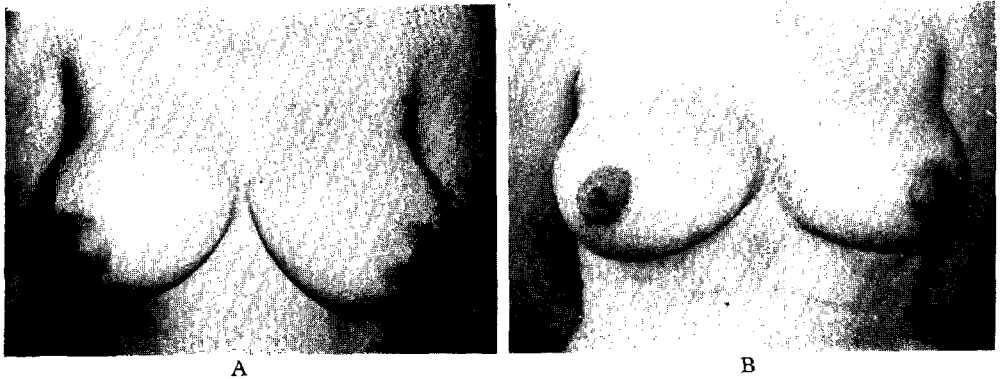


FIG. 6. A, Virginal hypertrophy. B, Post-operative result at 3 months. The amount of tissue removed was almost the limit to be certain of preserving the circulation of the nipple.

pectoral fascia is reached in the lower part of the dissection the gland is separated from the fascia but only as far as the level of the nipple.

In cases of simple ptosis part of the lower gland is infolded; in cases of hypertrophy a limited amount is excised. In each instance before suturing the gland with chromic catgut into its new shape, a mastopexy (Arie, 1957) is carried out with unabsorbable sutures passing through the pectoral muscles and picking up the periosteum of the rib (Fig. 3).

A small strip of skin is removed at the incision site, corresponding to the intradermal dissection or a little more in cases of very small areolas.

Every effort is made to obtain as perfect haemostasis as possible and the incision is closed in 1 or 2 layers with 2 or 3 drains placed radially. The areola is smaller than the defect into which it is stitched, but will stretch if the first 4 sutures are placed at the cardinal points and the remainder inserted appropriately to distribute the tension evenly. A continuous nylon suture is sometimes used, leaving loose loops around the drains; the loops are tightened after the removal of the drains 24 hours post-operatively.

It is very important that the dressing be done with an elastic adhesive tape applied directly to the skin. This helps to distribute the excess skin evenly over the reshaped gland.

RESULTS

This technique has given very good results (Figs. 4-6) and a follow-up study showed:

There were no circulatory complications in the gland, areola or the skin covering. No haematomas were observed.

In only 1 case has the sensitivity of the nipple not returned by 3 months.

Local oedema was much greater than after the usual techniques, but disappeared in 1 month.

The skin retracted completely in every case, including one with a marked ptosis.

The shape of the breast was good and the periareolar scar was unnoticeable after 1 month.

COMMENTS

It is thus technically feasible to reduce or reshape certain ptosed or mildly hypertrophic breasts through an areolar incision. The undermining of the skin does not increase the complications if the vascular pedicles are respected, specially in the upper medial quadrant, but the undermining of the retromammary space must be limited to the caudal half of the breast, since some of the perforating blood vessels come through the pectoral muscles.

In our private practice, more than 90 per cent of the patients seeking breast correction are under 40 with small to medium hypertrophy or just ptosis. These young active women are ideal patients for this technique.

SUMMARY

The authors present a new technique for selected cases of reduction mammoplasty and correction of ptosis, based solely on an areolar approach. The skin is undermined, the glandular contents reduced if required and a mastopexy carried out. The excess skin is not removed but adapts itself to the new size and shape of the gland.

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