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Aesthetic Plastic Surgery

Hypoplasia of the Lower Medial Quadrant of the Breast

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Abstract. A corrective surgical technique is described for a newly defined deformity: hypoplasia of the lower medial quadrant of the breast. It involves reducing the usually enlarged nipple–areola complex and reshaping the breast by turning a glandular pedicled flap from the fairly large upper two quadrants on a medial base into the underdeveloped site of the medial lower quadrant. The method proved uniformly successful in 11 cases and 17 breasts involved.

Key words: Tubular breasts—Tuberous breasts—Breast hypoplasia—Glandular pedicled flap—Aesthetic and reconstructive surgical correction

Since Bartels et al. [1,2] and Rees and Aston [11] reported on a new deformity, the tubular or tuberous breast, it has become a well-described entity [14]. Many names such as "nipple breast," "domed breast," "herniated areola complex" [3], and "snoopy breast" have been suggested or used, all basically meaning the same thing: a small cylindrical rather than conical breast with a small circumference at the base compared with the mammary size. The areola is stretched out and covers most or all of the tip of the breast. Most of the glandular tissue is concentrated centrally under this big nipple and gives the impression of being "herniated" outward from the surrounding skin. Some people even refer to a second crease a few centimeters above the short inframammary fold [7].

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This comparatively rare deformity has received considerable attention in the literature mainly because it is extremely disturbing to the patient especially because it is rather difficult to hide when wearing light clothing. The standard and well documented technique [1, 11, 12, 15] takes care of the large nipple by a circumareolar skin excision, which reduces its diameter to about 5 cm. After dissecting the gland, its base is widened by a cruciform [16] incision and an augmentation mammaplasty is performed. All two-stage techniques [7, 8, 13] should be avoided because they are never really necessary and only put undue stress on the patient.

Materials and Methods

Some years ago my attention was raised by another, quite different deformity: "tubular" breasts. Close inspection, however, revealed a different malformation. These breasts were comparatively large compared with the small tubular breasts and the tip droops considerably when the patient is standing. The nipple–areola complex was rather large but not herniated in any way. Upon further investigation it was discovered that the deformity resulted from a more or less marked hypoplasia of the lower medial quadrant of the breast, while the other three quadrants were normal or sometimes even enlarged. The drooping and tubular appearance resulted from the empty skin under and medial to the nipple, which gave it no thrust or support forward and outward.

An augmentation mammaplasty nor a reduction technique would certainly not help these girls. It

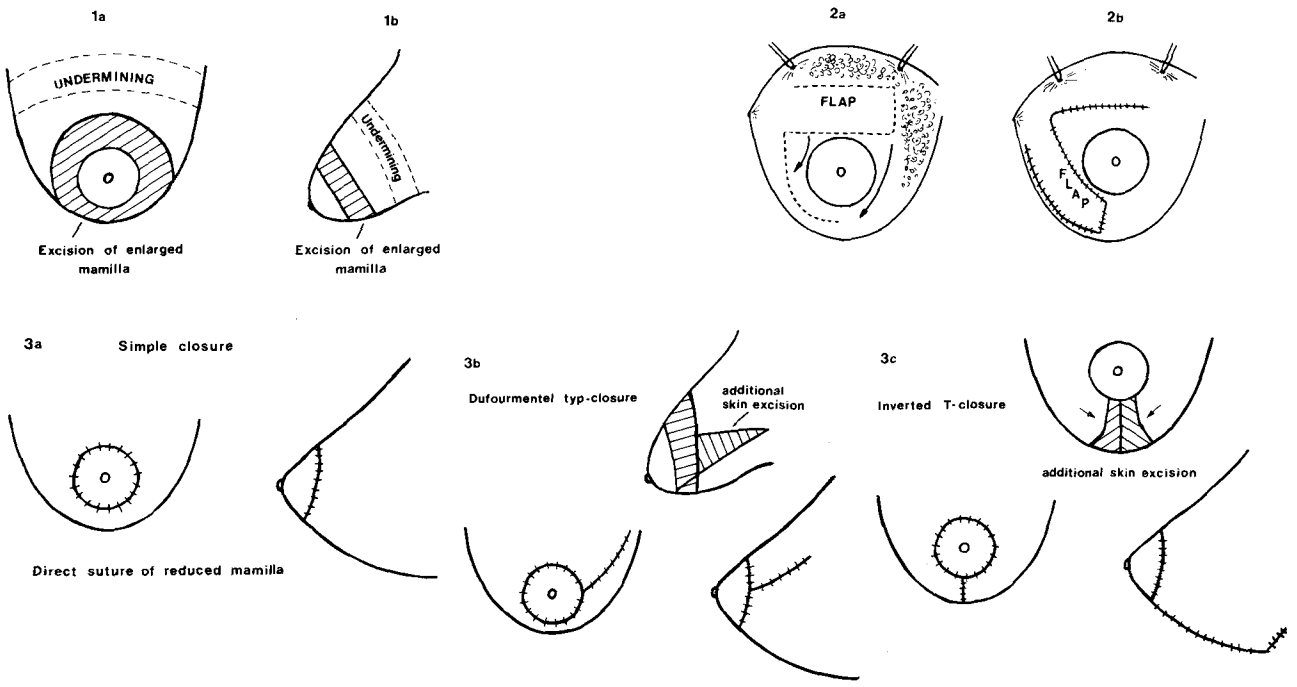

Fig. 1(A,B) Skin excision and undermining

Fig. 2(A,B) Developing the glandular flap above the mamilla and turning it inward and down to counteract the defect

Fig. 3(A) Direct suture of the reduced mamilla. **(B)** Dufourmentel-type closure is used and additional skin excision is performed if necessary. **(C)** An inverted T closure is used on the underside of the breast and additional skin is excised

was therefore concluded that rearrangement of the glandular tissue by transposition of a flap from the upper half of the breast into the lower medial quadrant might solve the problem.

Surgical Technique

Under general anesthesia the patient is placed in the same semirecumbent position used in a reduction mammaplasty and the desirable position of the nipple or nipples is marked. The size of the nipple is reduced by a circular excision of areolar skin leaving in place a normal-sized nipple approximately 5 cm in diameter (Fig. 1A). This excision should be very superficial in order to avoid disturbing the circumareolar plexus, so essential for the undisturbed survival of the nipple.

Now the skin is separated about 7–8 cm from the glandular tissue to give good exposure (Fig. 1B). A bulky, medially based flap is developed across both upper quadrants, similar to the superior excision in the Lexer method of breast reduction, but taking meticulous care to leave the medial pedicle intact (Fig. 2A). The flap width should be equal to the desired height of the nipple to achieve its proper placement (symmetrical in unilateral cases).

From the lower incision of this flap another incision is carried superficially around the lower inner half of the breast, where the relevant quadrant is missing. When the donor site of the above-mentioned flap is closed and the flap, after rotating 90°, is inserted into its new position, a fairly normal looking cone-shaped breast should be the result (Fig. 2B). The originally missing fullness of the lower medial quadrant is filled with the flap from both upper quadrants and the nipple is simultaneously raised to its proper position.

After the shape of the breast cone has been established, the loose skin is draped over the mound. In many cases no further excision of skin is necessary (Fig. 3A). If there is too much skin left, a short lateral excision (resection oblique) [4–6, 9] (Figs. 3B, 4) or a varied T excision with a short lower cross scar [10] (Figs. 3C, 5) can remove it. No tension, however, should be permitted in order to obtain the best scar possible. The breast should not need to be shaped because the proper cone has already been formed.

The wounds should be drained for a day or two and the patient can be dismissed on the fourth or fifth postoperative day.

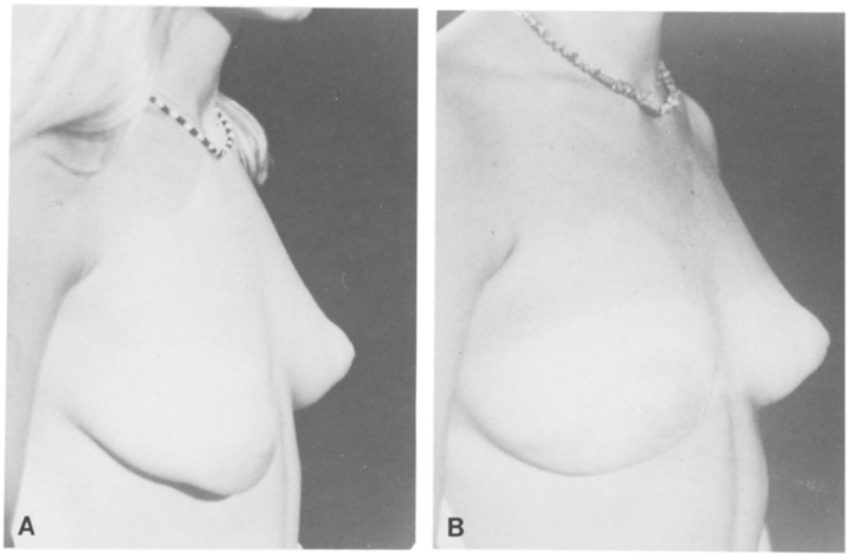

Fig. 4(A) Preoperative and **(B)** postoperative views. The lateral scar after the "oblique" skin excision is still obvious after 6 weeks

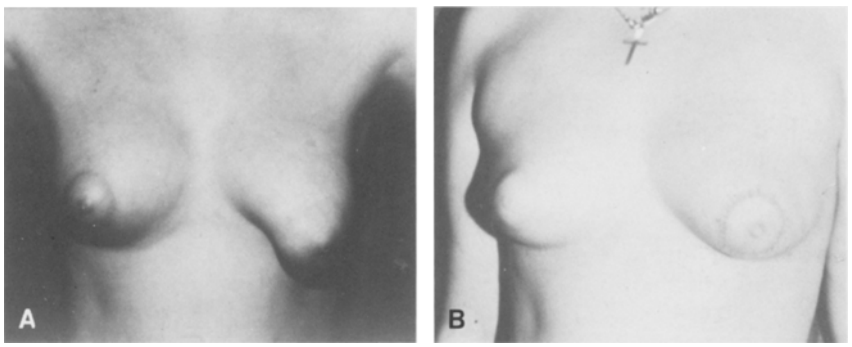

Fig. 5(A) Preoperative and **(B)** postoperative views. Appearance after an inverted T skin excision is performed

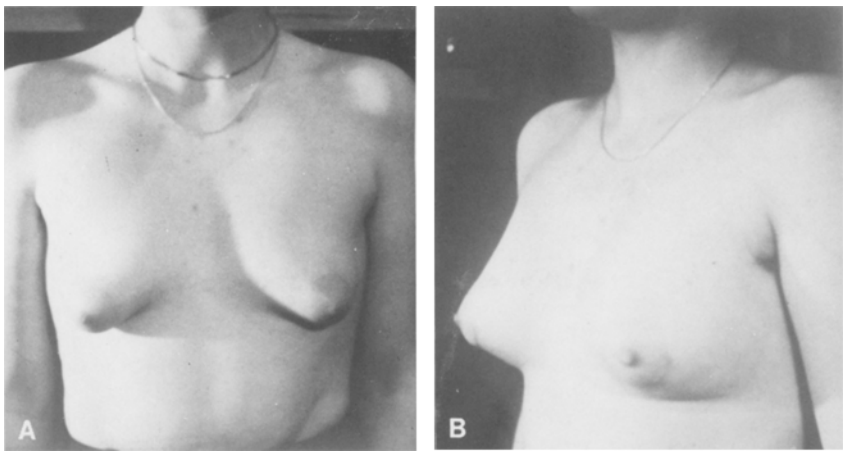

Fig. 6(A) Preoperative and **(B)** postoperative views. A typical bilateral case

Results

This procedure has been performed on 11 patients, 6 unilaterally and 5 bilaterally (Fig. 6). In two of the unilateral patients, an augmentation mammaplasty was performed on the contralateral side, which seemed too small for simple adaptation (Fig. 7A, B). There were no postoperative complications and primary healing was achieved in all patients. The results, the longest being five years, were pleasing

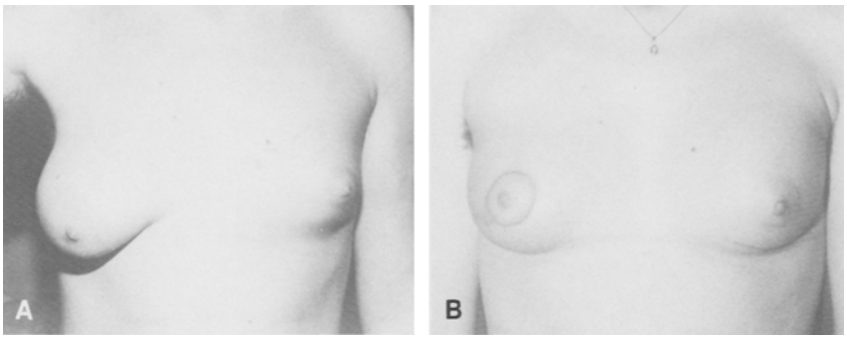

Fig. 7(A) Preoperative and **(B)** postoperative views. The operation described here was performed on the right side with typical augmentation mammaplasty on the left side

to both patients and surgeon and have stood up well against gravity. No further surgery was performed on any patient.

Up to now no pregnancy has occurred so no observations can be made on lactation with the glandular flaps.

Discussion

A breast deformity can be irritating to any woman afflicted by it. All the women in this study avoided physical examination and outdoor sports and frequently rejected sexual intimacy for fear of ridicule. Since reshaping the female breast to correct hypertrophy as well as underdevelopment has become a commonly accepted plastic surgical procedure, the tubular breast seems an ideal candidate for corrective surgery. No foreign material is necessary and scarring is comparatively minimal. The old belief that this was as rare an occurrence as the original "tubular" breast has been proven wrong. If the surgeon is aware of the possibility of such a deformity, he/she will encounter it quite frequently.

Summary

A corrective surgical technique was described for a newly defined deformity: hypoplasia of the lower medial quadrant of the breast. It involves a reduction of the usually enlarged nipple–areola complex and the reshaping of the breast by turning a glandular pedicled flap from the fairly large upper two quadrants on a medial base into the underdeveloped site of the medial lower one. The method proved uniformly successful in 11 cases involving 17 breasts.

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