Tuberous Breast: A New Approach

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The authors make a historical summary of the pathologic condition of tuberous breast and describe a new procedure for its correction. The method involves a periareolar approach, dividing the breast in two portions to disrupt the constricting ring, and making an inferiorty based flap or pedicle, as described and used by the senior author since 1969, with publication in 1973. The main goal is to correct the deformity at one-stage operation, resulting in a periareolar scar only, without the use of alloplastic elements such as prostheses, mesh, or tissue expanders. The authors emphasize that Brazilian patients prefer having small breasts rather than large ones, even though the procedure allows the implantation of pre- or retromuscular implants through the periareolar incision. (Plast. Reconstr. Surg. 101: 42, 1998.)

In 1978, Bass reported his technique with an emphasis on the herniation of the nipple-areola complex. In 1981, Toranto described a two-stage operation, and Williams would again report on a specific treatment for tuberous breasts. Good results were also achieved in 1993, with Teimourian and Adhan's technique of making two incisions (areolar and submammary) with the use of prostheses. In 1986, 1991, and 1994, Versaci's technique suggested surgical treatment, with the use of tissue expanders, in many operative stages.

Dinner, in 1987, and Elliott, in 1988 (case report), used flaps from the submammary fold for the treatment of tubular breasts. Reynaud, in 1990, Azzolini and Parodi, in 1992, and Auclair and Mitz, in 1993, performed other incisions, in addition to the areolar one, with the use of prosthesis or tissue expanders. Muti combines the use of glandular flaps with the implantation of prostheses, through periareolar incisions, either with or without vertical scars as a complement. Our procedure was based on the fact that pushing the mammary gland in through the hernia only, narrowing the periareolar skin envelope, would not correct the deformity if the constricting ring were not disrupted.

Also, we have decided to avoid use of prostheses because of breast implant litigations, and above all because our patients are much more concerned about the size of scars than the size of breasts.

Surgical Sequence

With the patient half-seated in dorsal decubitus, under general anesthesia, the new areola is drawn with a diameter of 4 or 5 cm, and the exceeding halo is marked. Because asymmetry
Fig. 1. (Above, left) The areola, with its exceeding halo, and the new submammary fold are drawn. (Above, right) The circumareolar region is deepithelialized. (Below, left) The breast is divided in two halves with an incision going below the areola to the muscular level. (Below, right) The lower half is undermined with scissors.
Fig. 2. *(Above, left)* Resection of the lateral and medial prolongations. *(Above, right)* The pedicle or inferior flap is ready. *(Below, left)* Lateral view of the upper half with the areola and inferior pedicle. *(Below, right)* The inferior flap is bent over itself to fill up the inferior pole and give projection to the breast.
Making of the inferiorly based flap is started, with the breast being divided in two portions: the upper portion with the areola; the lower portion in which the inferior pedicle or flap will be made (Fig. 1, below, left). The medial and lateral prolongations are freed with care taken not to injure the fourth and the fifth intercostal perforating vessels.

The pedicle is formed by the resection of the medial and lateral prolongations (Figs. 2, above, left and 3). That maneuver will account for the disruption of the constricting ring, which characterizes the herniation.

The projection of the breast is obtained with the inferior flap or pedicle, vascularized by the fourth, fifth, and sixth intercostal arteries (Figs. 2, above, right, 4, and 5), that is bent over itself (Figs. 2, above, right, and 6) and attached to the lower pole so that the area should be filled up (Fig. 7, above, left and right). The upper portion, with the constricting ring already disrupted, will droop naturally over the pedicle, causing the mammary base to become enlarged (Fig. 7, below, left).

The periareolar final suture is made by the technique of Peled et al.\textsuperscript{17} and Benelli,\textsuperscript{18} or round-block, and is performed with nylon 2/0. Areolar suture is made with nylon 6/0, in separate stitches (Figs. 7, below, left and right). It is important to immobilize the breast with micropore postoperatively for 15 days. Before and after views are shown (Figs. 8 through 10).

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Fig. 7. (Above, left) View of the inferior pedicle filling up the inferior pole. (Above, right) The inferior flap is attached to the pectoralis fascia with suture. (Below, left) The round-block suture technique. (Below, right) The final suture of the areola using separate stitches.
Fig. 8. (Above, left) Preoperative front view to show asymmetric breasts, with asymmetric areolae and submammary folds. (Above, right) Front view, 1 year later. Suture of the right areola was done by round-block technique, whereas the left areola was sutured by compensation. (Center, left) Right side oblique view to show asymmetric areola and left tuberous breast. (Center, right) Postoperative oblique view to show correction of the submammary fold (the new one) and correction of tuberosity on left breast. (Below, left) Oblique view, opposite side, preoperatively. (Below, right) Postoperative in the same position, to show filling of the lower pole of the right breast and correction of tuberosity on the left breast.
Fig. 9. (Above, left) Preoperative front view. Breasts are more symmetric in size as well as in areolae. A case rarely found in the history of the pathologic condition. (Above, right) Postoperative front view to show that no prosthesis have been used for the correction. (Below, left) Preoperative oblique view to show right tuberous breast preoperatively. (Below, right) Eight months later, to show fulfilling of the inferior pole by the pedicle used in the technique described. No prostheses were used for the enhancement obtained.
REFERENCES

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