



The Pitanguy Technique for the Surgical Treatment of Breast Hypertrophy

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2.1 Introduction

Pitanguy's technique for the surgical treatment of breast hypertrophy was introduced into the world literature in the early 1960s (Pitanguy 1978, 1960, 1961).

The procedure has been considered one of the most popular used for the treatment of breast hypertrophy. This has not occurred by chance and therefore deserves a critical evaluation.

I worked with Professor Pitanguy for 35 years without interruption, performing and teaching his technique. Thus, I had the opportunity to observe the evolution of the technique and now intend to show my point of view.

These are the main basic principles:

- The mammary flaps of the procedure must maintain its connection to the overlying skin.
- Undermining of the flaps is consistently reduced.
- The inferior pole of the breast is removed, preserving the “adipose capsule of the superior pole of the breast”
- A keel-shaped glandular resection is performed, allowing a wide elevation of the nipple-areola complex (NAC)
- Dead spaces in the new breast are eliminated.

Since then, Pitanguy has presented important papers that have consolidated the technique (Pitanguy 1978, 1967, 1981).

2.2 History

In 1959, Pitanguy proposed some modifications to Arié's technique for breast reduction (Pitanguy 1978). In 1960, Pitanguy published his personal technique (Pitanguy 1960).

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2.3 The Pitanguy Technique

This technique is described in important papers published by Pitanguy (1978, 1967, 1981).

The surgical steps are as follows. Initially, a vertical line is drawn from the midpoint of the clavicular bone to the nipple (it is named the mid-clavicular line). On this line point A is marked at a level just below the projection of the inframammary fold, as shown by the finger in Fig. 2.1. This point marks the final position of the NAC, which is situated slightly above and laterally to this point, in the middle of the mammary cone.

To determine the amount of tissue to be resected, the breast is manually grasped and the points B and

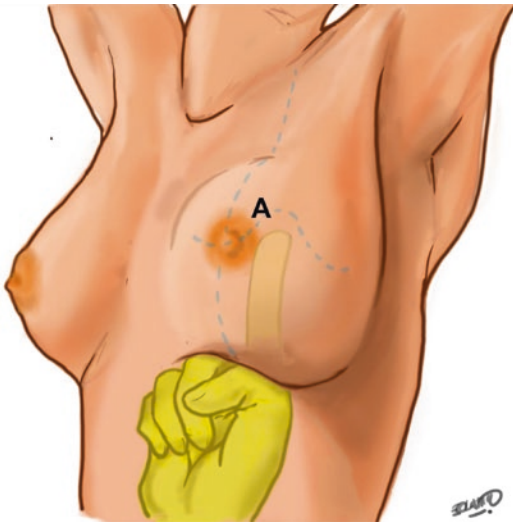


Fig. 2.1 Point A marked on the midclavicular line at the level just below the projection of the inframammary fold

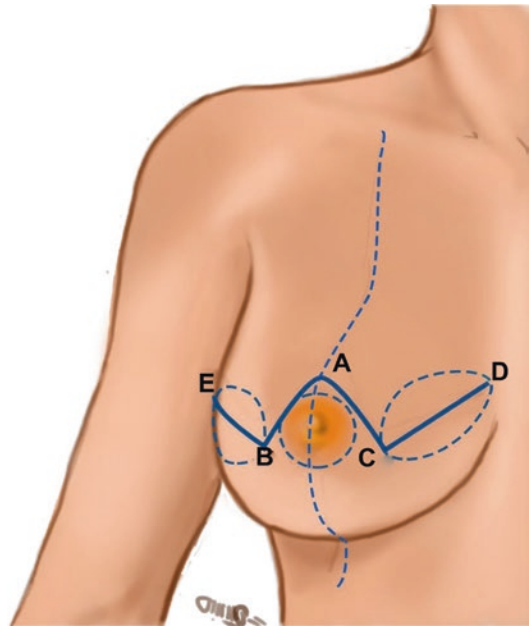


Fig. 2.3 The lines AB and AC are drawn. Points D and E are marked at the medial and lateral extremity of the inframammary fold respectively. Lines connecting points B–D, and C–E are drawn (see text)

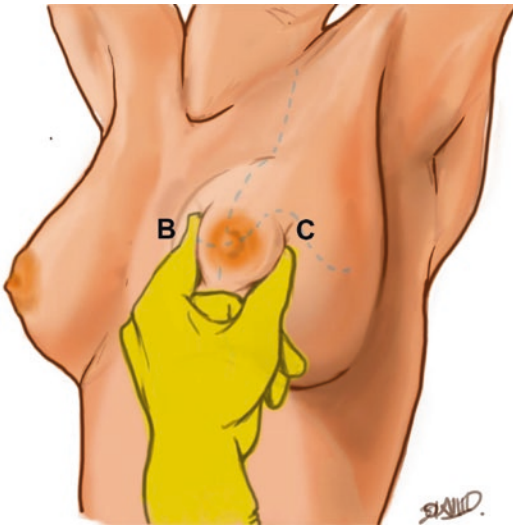


Fig. 2.2 To determine the amount of tissue to be resected, the breast is manually grasped and the points B and C are marked

C are marked (Fig. 2.2). The points can vary (range) according to the indications of each case. Pitangy advises that the AB and AC distances should not be greater than 6–7 cm and that B and C points should not be placed higher than a transversal line passing the nipple. The distance between points B and C varies according to the amount of tissue to be removed. The lines AB and AC are drawn. Points D

and E are marked at the medial and lateral extremities of the inframammary fold respectively. Lines connecting B–D, and C–E are drawn. BD should not exceed the anterior axillary line. CE should not reach the median external line (Fig. 2.3). The skin area to be resected is now determined. The position and size of the NAP are evaluated using sizers that vary in diameter.

Breast distention is performed allowing Schwartzman's maneuver around the areolar skin. The skin of the ABC triangle is undermined (Fig. 2.4).

Forceps placed at point A raises the breast. CD and BE incisions are performed deep to the muscular fascia. Another incision is performed from point B to point C. Then, a keel-shaped glandular resection is performed, starting below the areola and preserving the adipose capsule, which Pitangy considers a third pedicle (Fig. 2.5). Resection is made in one single block including skin and adipose and glandular tissues. After the desired resection, two columns or pillars (medial and lateral) are identified and put together in the middle of the breast. The breast

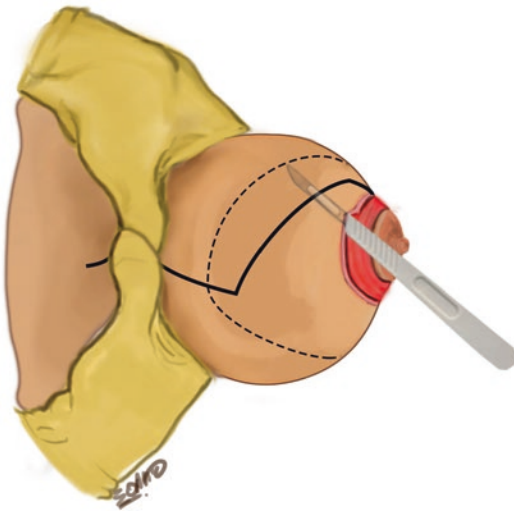


Fig. 2.4 Schwartzman's maneuver

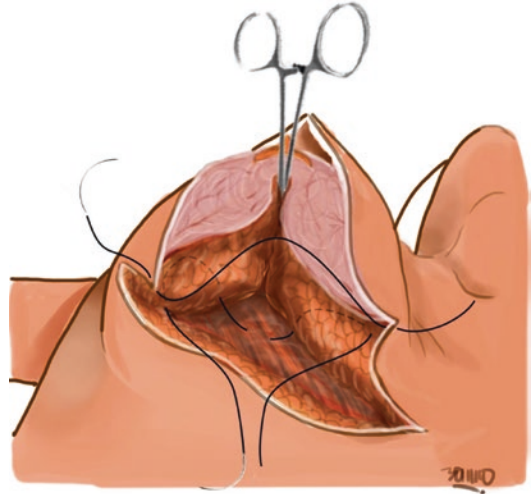


Fig. 2.6 Fixation of the columns into the chest wall

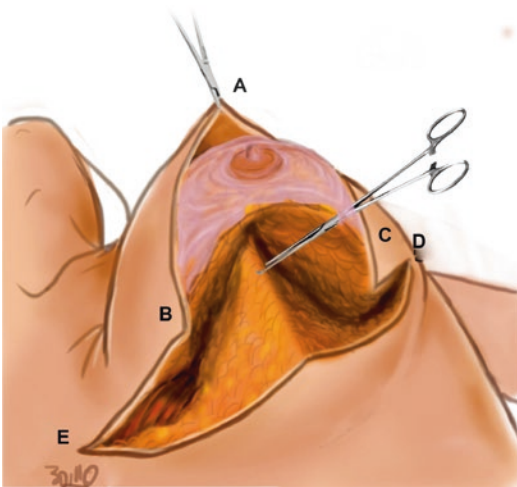


Fig. 2.5 The keel-shaped glandular resection is performed, starting below the nipple–areola complex and made in a single block

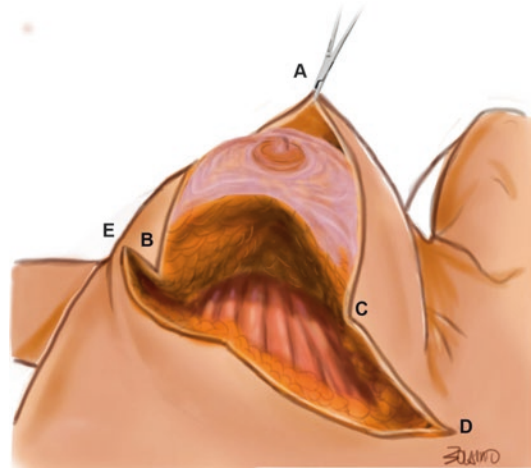


Fig. 2.7 Breast molding is completed by the union of points BC on the inframammary fold in a point that ideally corresponds to the projection of the nipple line onto this fold.

cone now formed raises the NAC to the summit of the breast. At this time, columns are fixed into the chest wall (Fig. 2.6).

Breast molding is completed by the union of points BC on the inframammary fold in a point that ideally corresponds to the projection of the nipple line on this fold (Fig. 2.7). Dead spaces inside the breast must be avoided.

When a larger resection of skin than glandular tissue is needed, the excised skin is evaluated and

removed in the vertical scar (AB/AC). The final position of the NAC is then determined.

2.4 Some Considerations About the Technique

Regarding its importance in the marking of reduction mammoplasties, point A is nowadays known as Pitanguy's point by some authors.

The technique maintains skin and glandular connections in the remaining breasts, which allows normal breast feeding (lactation) and preserves nipple sensitivity. Raising the NAC flap up to the upper pole increases the fullness in this area of the breast, offering offers a better aesthetic result. The union of pillars (medial and lateral) in the middle of the breast and its fixation into the pectoral fascia gives rise to a conical and well-formed breast with an adequate position on the thoracic wall. It is Pitanguy's opinion that by preserving embryological connections between the skin and glandular tissues in the flaps, the suspension of the breast is assured. This is a very good reason for avoiding postoperative ptosis.

Pitanguy also points out the importance of drawing the points of his technique in the operating room with the patient in a semi-seated

position. Before the mounting of the breasts, the resection of one side must be compared with the other to achieve better breast symmetry. In dealing with breast asymmetry, the ABC triangle should vary from one side to the other.

2.5 Author's Experience with Pitanguy Technique

My experience and results with Pitanguy's technique have been extremely favorable as I have been performing it for more than 40 years.

Keel-shaped glandular resection allowed the NAC to be raised in the most of our cases without the need for any other maneuver and providing a good shape to the upper pole (Fig. 2.8). In many cases, Letterman's maneuver (Letterman and Schurter 1981) was used to help raise the

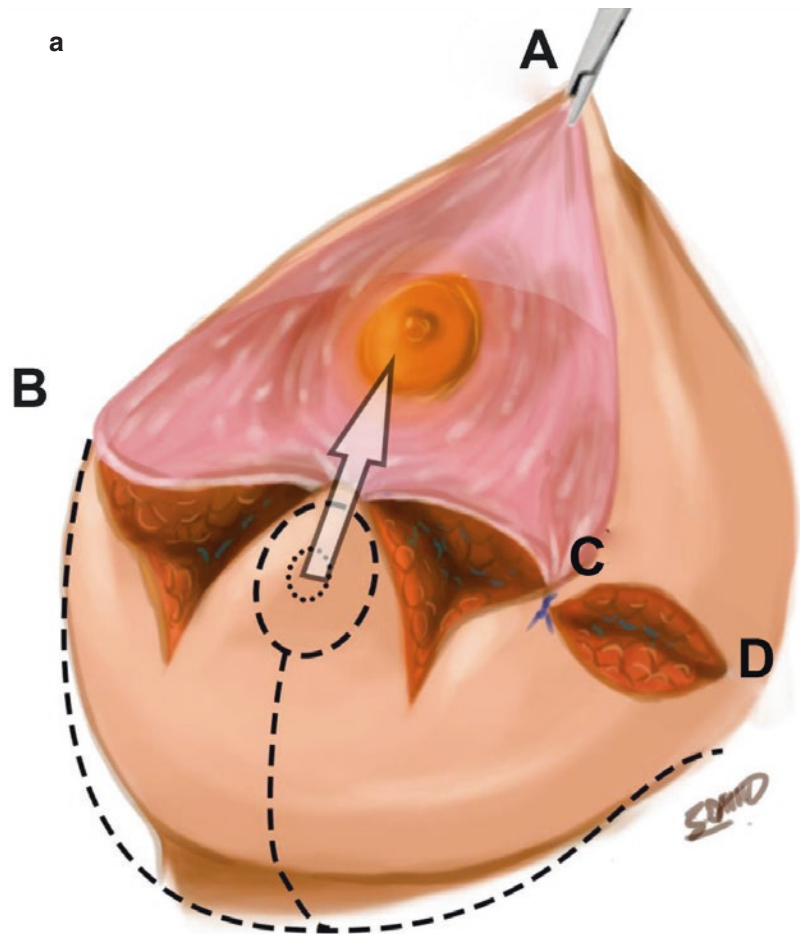


Fig. 2.8 (a) Nipple-areola complex elevation according to Pitanguy's technique. (b) Large mammary ptosis. Postoperative aspect 3 months after surgery. (c) Same patient, oblique view

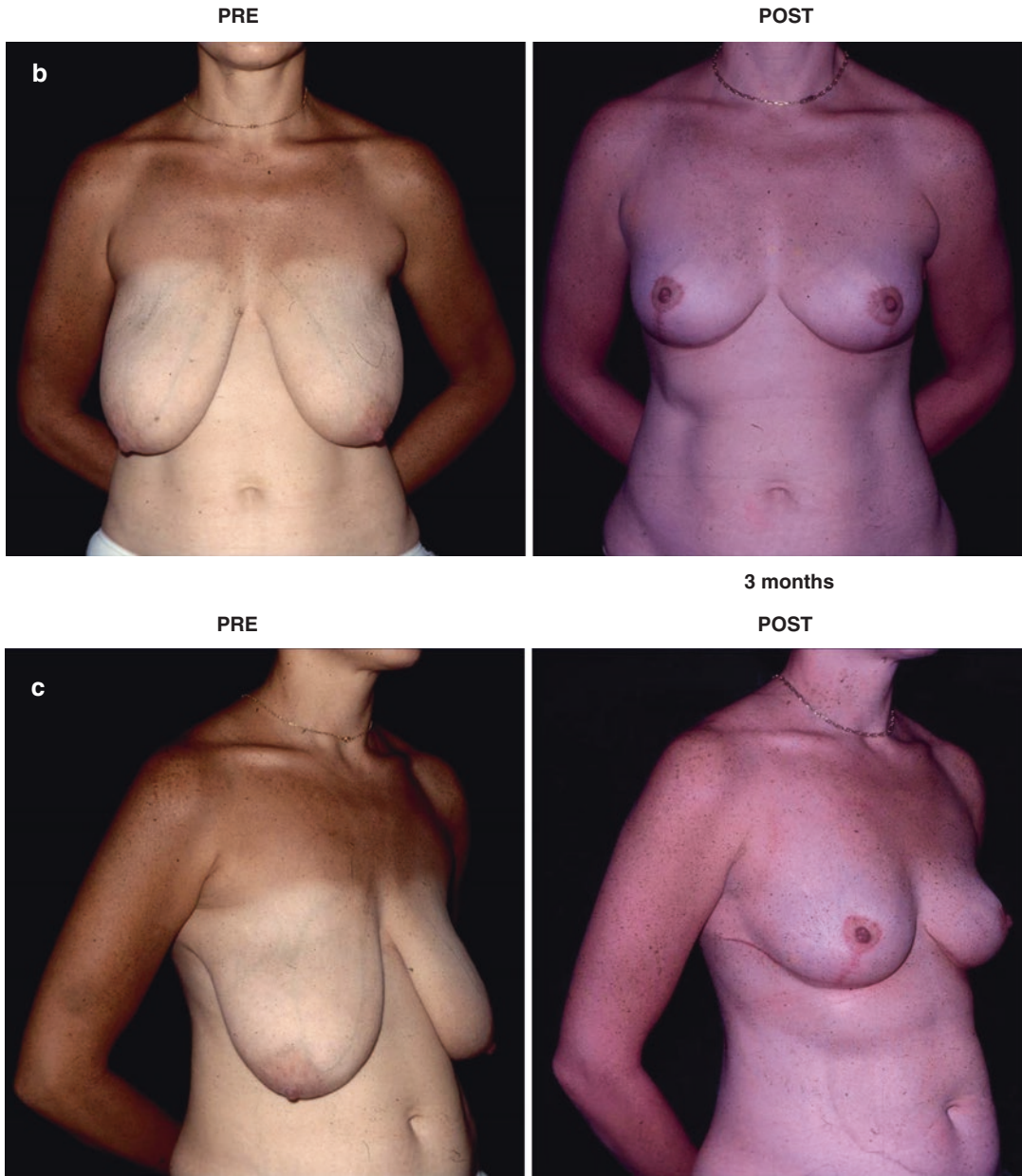


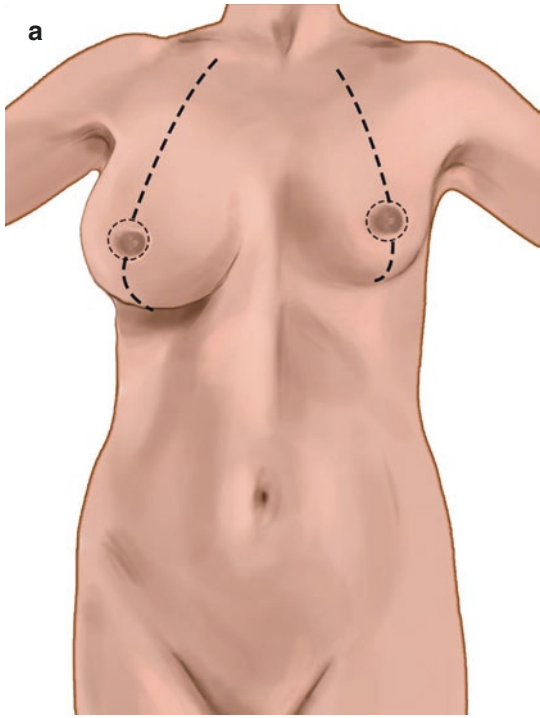
Fig. 2.8 (continued)

NAC. In a few cases of more severe ptosis we used the Silveira Neto medial flap (Silveira 1976) for providing an adequate position for the NAC.

I consider Pitanguy's technique to be a very well indicated procedure for the correction of breast asymmetry because it does not depend on a

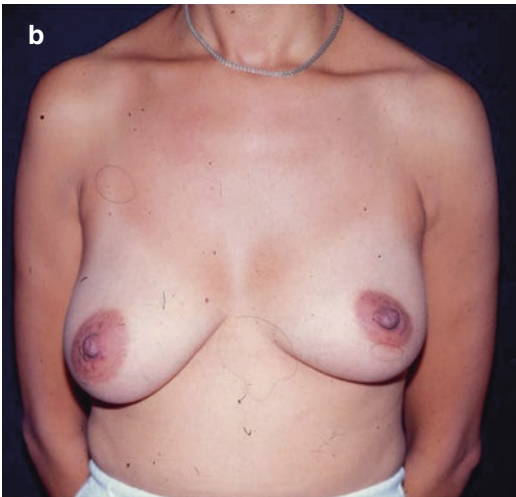
previous and rigid marking allowing different resections between one side and the other (Fig. 2.9).

Final scars, if well positioned and according to the correct principles of the technique, showed good aesthetic results in the late postoperative period (Fig. 2.10).



PRE

POST



6 MONTHS

Fig. 2.9 (a) Drawing the Pitanguy's technique for the correction of mammary asymmetry. (b) Mammary asymmetry treated using Pitanguy's technique. Result 6 months after the surgery

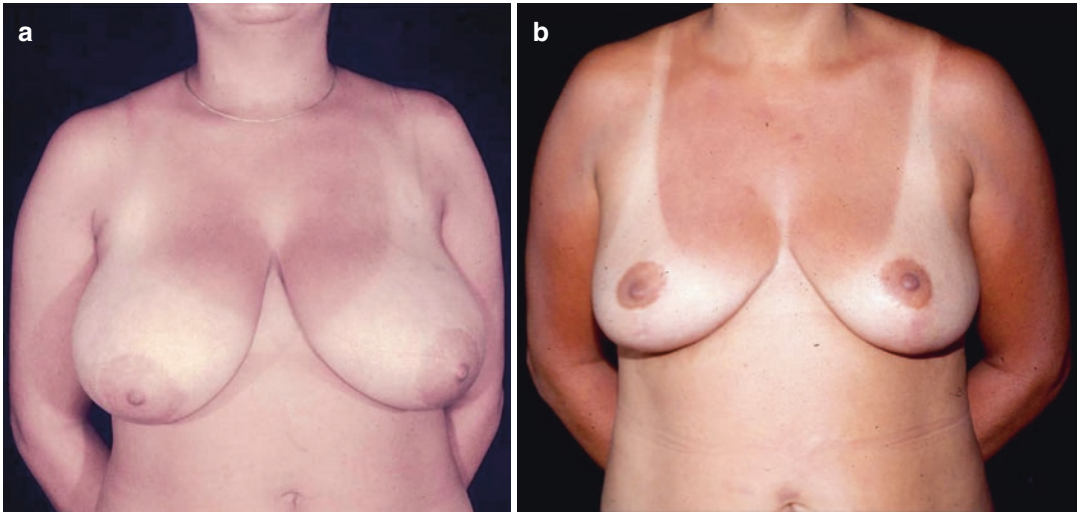


Fig. 2.10 (a) Preoperative aspect of a patient with massive breast hypertrophy, ptosis, and asymmetry. (b) Same patient. Result 18 years after the surgery was performed using Pitanguy's technique

2.6 Technical Variations

With the distribution of the procedure over a long period all around the world, many authors have adopted it and have published papers suggesting variations and contributions in the search for even better results. Some of them have proposed a greater distance between the AB and AC points of as much as 9 cm, suggesting putting the NAC in a higher position if required. Others surgeons proposed different forms of glandular resections according to the variations in breast deformities. Others proposed shorter scars on the inframammary fold. In all these proposed technical variations, and in others not mentioned here, we notice that the main principles of Pitanguy's technique have been observed (and respected).

2.7 Personal Contribution: Adjuvant Maneuver to Pitanguy's Technique

This is a procedure for patients who have large amounts of glandular tissue on the lateral quadrants of the breast that may be prolonged

upward and laterally toward the axilla, forming what we call the lateral bulge of the breast. To treat these deformities, I developed a simple and efficient maneuver (Carreirão et al. 2009) (Fig. 2.11).

The glandular resection is performed according to Pitanguy's original breast reduction technique. As already described, this technique creates two pillars (medial and lateral). In these deformities, the lateral pillar is always larger than the medial one. Measurements or dimensions of the medial pillar are transposed to the larger lateral pillar. The excess inferior and lateral tissues in the lateral pillar are resected. The entire axillary extension (Spencer) is removed, leaving the two pillars of the same size. The subcutaneous tissue in the lateral border of the breast should be preserved to avoid skin retractions. The now symmetrical pillars are fixed together, into the pectoral fascia at the midline, in the way described by Pitanguy.

This maneuver, as described, allows the removal of an axillary process and the excess tissue that determined the lateral bulging of the breast. The procedure achieves a better lateral contour (Fig. 2.12).

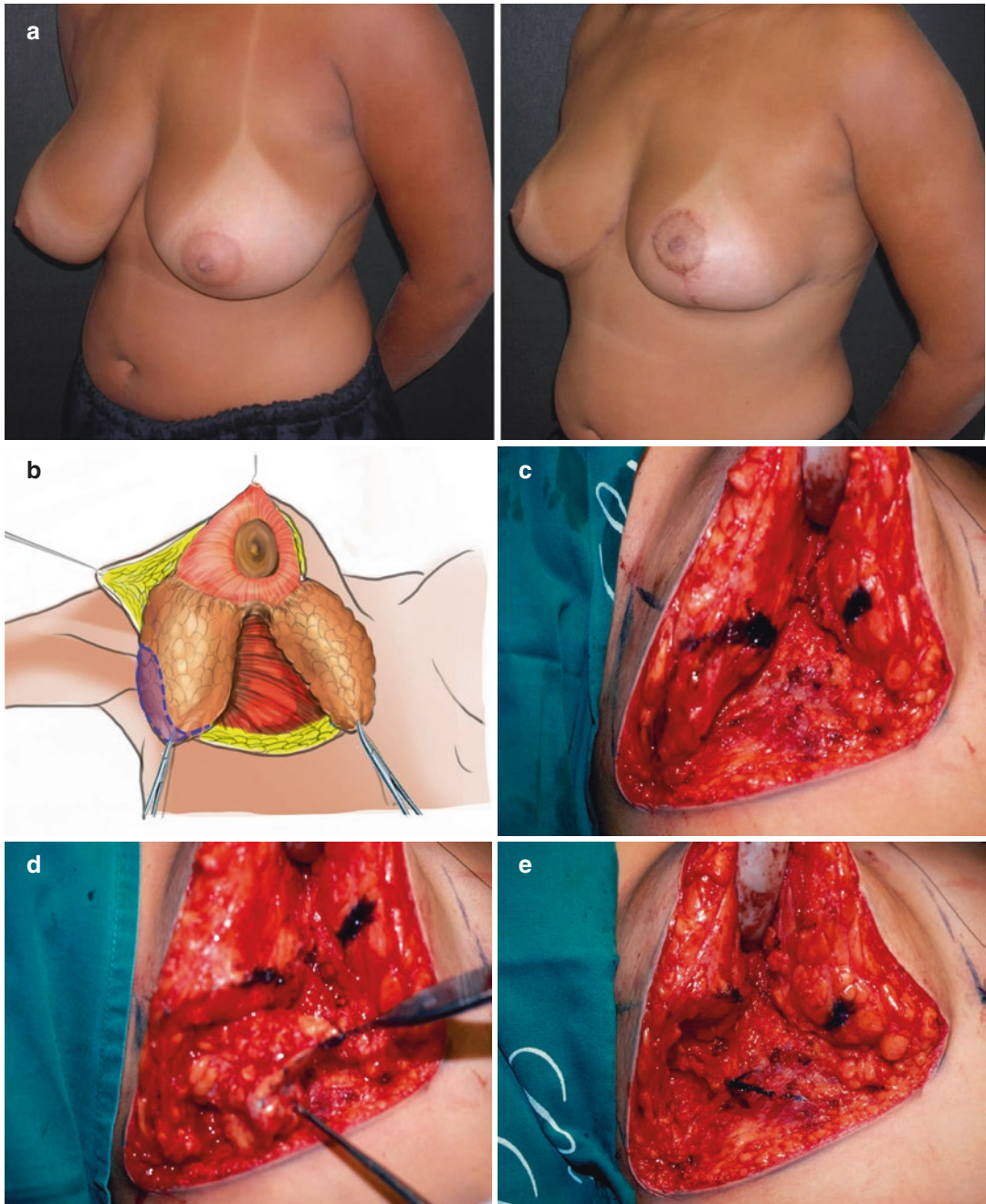


Fig. 2.11 (a) The deformity and the result in a patient treated with the maneuver described by the author. (b) The schedule of the maneuver described by the author. (c) Marking of tissue excess of the lateral aspect of the breast.

(d) Resection of the demarcated area including the axillary process. (e) Aspect of the breast after resection of the excess lateral tissue



Fig. 2.12 (a) Patient with breast hypertrophy and lateral bulging deformity. Pre- and postoperatively (6 months). (b) Same patient. Notice the large deformity at the lateral aspect of the breast and the postoperative result

Conclusions

Pitanguy's technique for breast reduction is today performed all over the world. Almost all Brazilian plastic surgeons had or has had some experience with it.

It is a simple procedure, easy to learn, that has given good results for almost who used it. By following rigid anatomical criteria, it is a safe procedure with a low grade of complications. Most of the results show a breast with a

natural aspect in its shape, volume, and position, and they are normally symmetrical. The final scars are well positioned and normally of good quality. Long-term results are considered to be very good (Fig. 2.12). The lack (absence) of rigid marking means that the procedure is very often used to correct asymmetries and in secondary mammoplasties. It also allows creativity on the part of the surgeons, in their search for even better results.

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