

Treatment of Mammary Ptosis with Crossed Flaps without Skin Preresection

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ABSTRACT

The author has been using this technique for more than 10 years in mammary ptosis cases — 90% of the cases in pure ptosis and 10% in ptosis with small hypertrophy cases. Once it is a technique that is easy to perform, it does not require the skin preresection in the initial phase nor the rigid demarcation upon surgery start, which shall be performed only when flaps are already positioned and skin may be fitted according to mamma shape. Previous marking serves just as reference.

This is a safe procedure that preserves circulation, skin, fat and glandular component. It allows extensive rotation of mamma base with minimal bleeding and greatly favors tissue visualization.

Scars are deployed on medial and lateral segment and areola and nipple rise are easily made.

INTRODUCTION

Mammary ptosis treatment has been studied by surgeons since Pouson's work⁽¹⁾, in 1897. From then on, and up to 1957, a number of techniques and approaches were developed achieving better or worse results, but with high rates of complications. In 1957, Arié⁽²⁾ published a paper exposing the single vertical incision technique. This work was the starting point for several studies, variations and enhancements for the pathology

correction. The crossed-flap technique was enhanced based on Beisenberger's⁽³⁾, Dufourmentel's⁽⁴⁾, and Gillies⁽⁵⁾ and Marino's surgeries, being divulged here and adopted by Brazilian authors such as Sperli⁽⁶⁾, Pigossi⁽⁷⁾, Hamke⁽⁸⁾, etc.

Considering that mammary ptosis presents a great disparity between content (glandular fatty tissue) and

container (skin), this latter being always excessive, we chose mammary flap intercrossing technique once it presents a number of favorable points in relation to other procedures.

We have used this technique in more than 100 patients for an 8-year period, the majority of cases being pure ptosis (90%) and the remaining (10%) being ptosis associated to small hypertrophies. More appropriate techniques are chosen for medium and large hypertrophies.

As it is easy to be performed and gives highly satisfactory results, in some cases it does not require previous skin resection, once cutaneous flaps will be fitted according to mammary cone build-up and not according to preestablished design. In these cases, marking serves just as a reference point. Thus, this procedure brought a considerable decrease on risk margin with

relation to preoperative marking, mainly in those cases in which skin presents extreme resilience.

Along with these advantages, cutaneous, fatty and glandular circulatory component preservation are also granted, facilitating an effective rotation of mamma external pole and decreasing its base. Given glandular fatty flap superposition, it allows a marked projection forming a stable and good-consistence cone. In addition to presenting minimal bleeding, gland detachment in retromammary avascular area favors good tissue visualization and gives access to a possible existing pathology.

In most of the cases the resulting scars were small and the raise of the areola-nipple complex was performed with no tension level and with sensitivity integrally preserved.



Fig. 1 - Marking of the reference point.
Fig. 1 - Marcação do ponto de referência.



Fig. 2 - Anterior debridement with single medial incision.
Fig. 2 - Descolamento anterior com incisão única mediana.

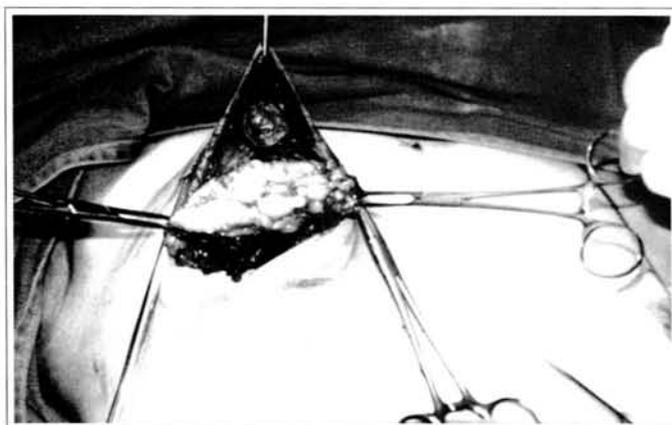


Fig. 3 - Gland debridement in the retromammary space.
Fig. 3 - Descolamento da glândula no espaço retromamário.

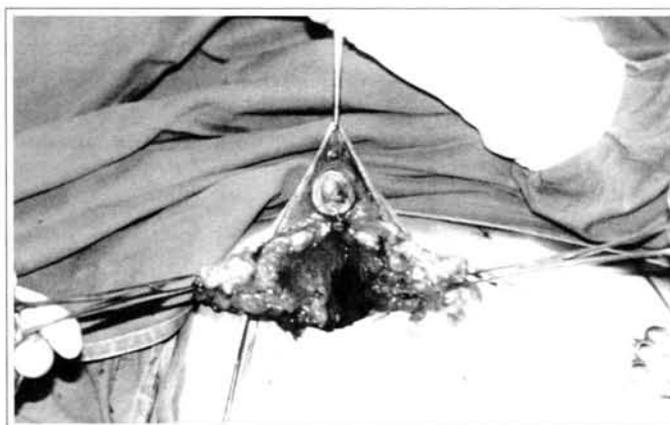


Fig. 4 - Mammary gland bipartition forming two pedicles (left and right).
Fig. 4 - Bipartição da glândula mamária formando dois pedículos (esquerdo e direito).

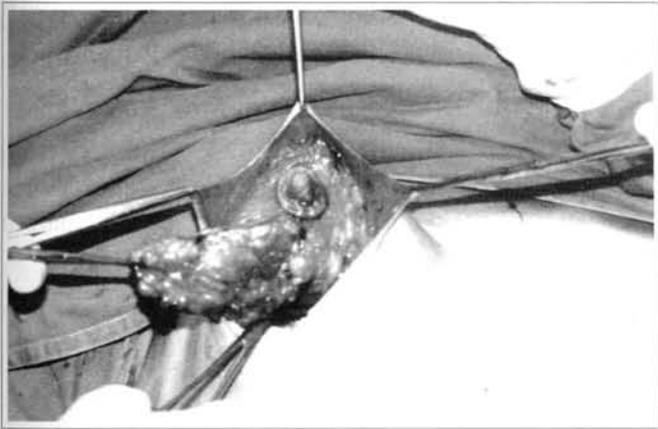


Fig. 5 - Rotation of the medial pedicle.
Fig. 5 - Rotação do pedículo medial.

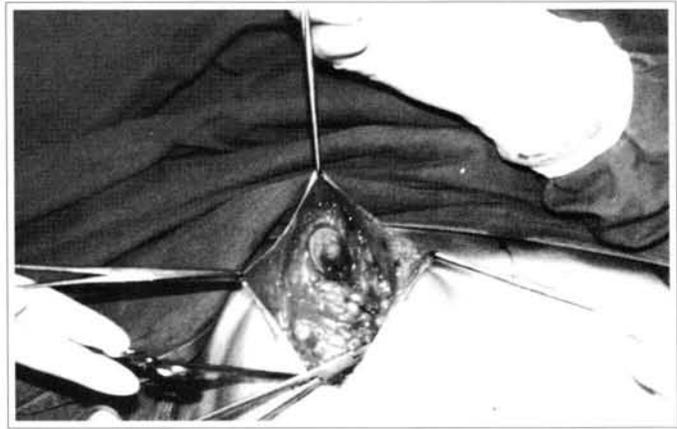


Fig. 6 - Rotation of the lateral pedicle.
Fig. 6 - Rotação do pedículo lateral.

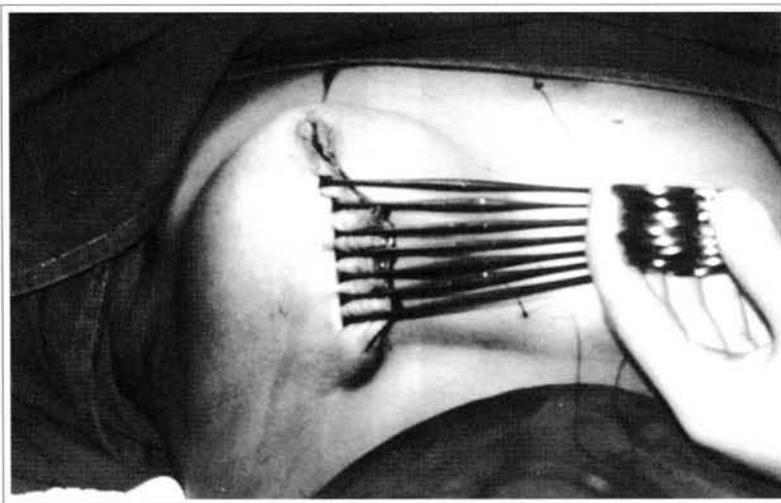


Fig. 7 - Skin accommodation with Hallis forceps.
Fig. 7 - Acomodação da pele com pinças de Hallis.



Fig. 8 - Remaining triangle.
Fig. 8 - Triângulo remanescente.

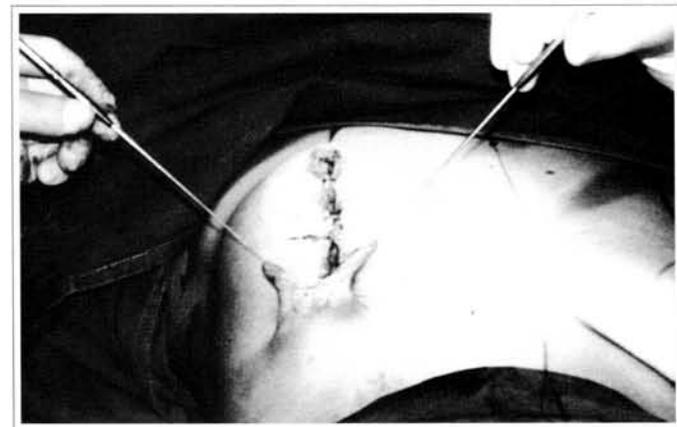


Fig. 9 - Remaining triangle.
Fig. 9 - Triângulo remanescente.

SURGICAL TECHNIQUE

It follows mammary surgery general principles performed with the patient semiseated, general anesthesia, assisted local anesthesia or high peridural anesthesia, according to each patient.

Point A is marked at humeral midline, always 1 to 2 cm above areola-nipple complex, points B and C are determined by clamping with the fingers the excess

sive skin to be hypothetically removed, and terminating 1 cm above mammary fold (Fig. 1).

Then, stitches are joined in spindle-shape and lateral compensations that will form an inverted T when surgery is completed are marked.

After areola-nipple complex demarcation, Schwartzman maneuver is performed around areola, with or without skin resection throughout the marked

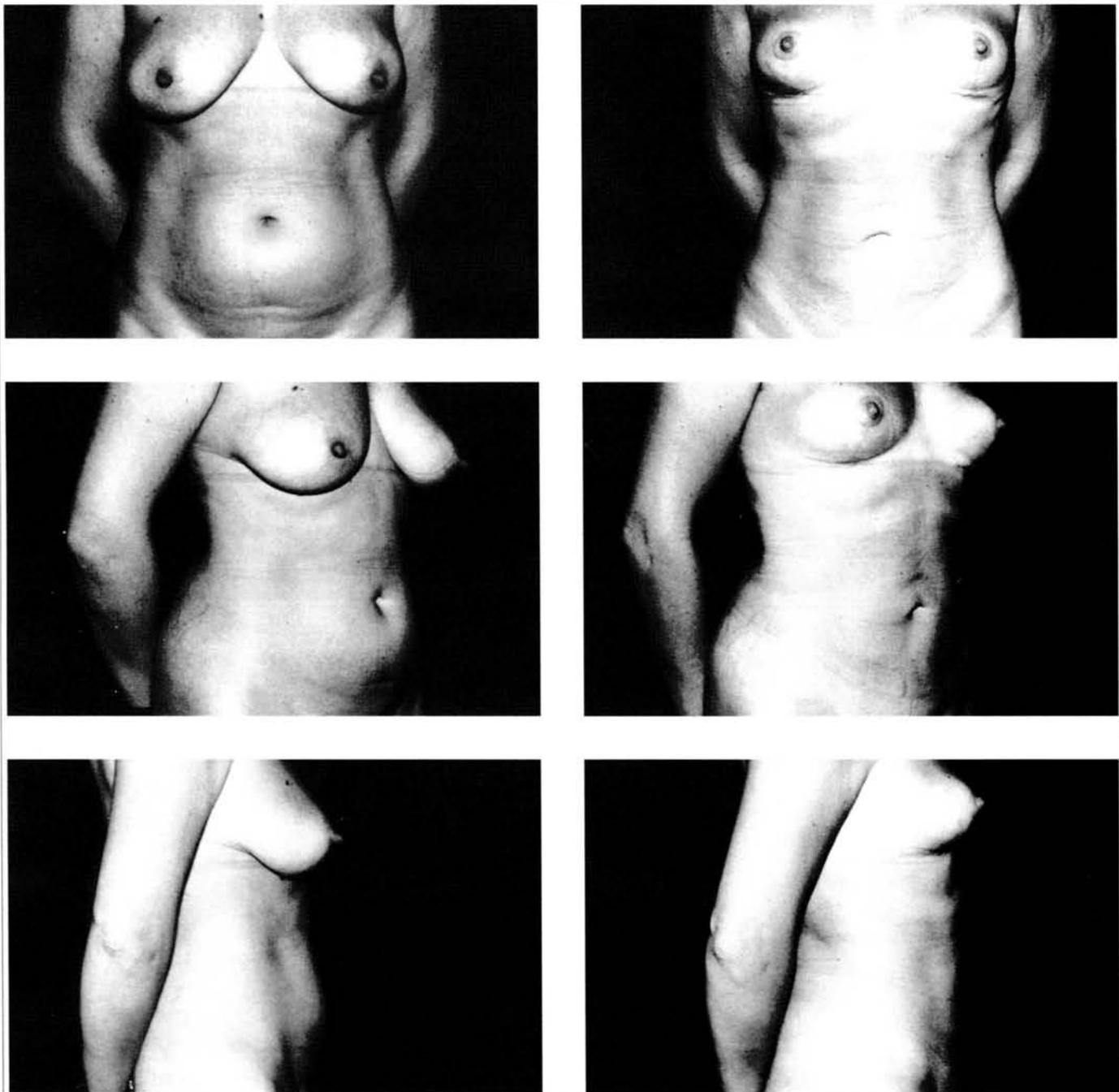


Fig. 10 - CASE 1: 42 years old patient presenting ptosis with moderate hypertrophy. Pre (left) and postoperative (right).

Fig. 10 - CASO 1: paciente de 42 anos apresentando ptose com hipertrofia moderada. Pré (esquerda) e pós-operatório (direita).

area. If doubt exists as to marking, surgery proceeds with a single median incision only (Fig. 2). Then, the whole retromammary gland space is detached from submammary fold using maximum of tissue available (Fig. 3). Detached gland is divided into two parts at its lower pole, forming two pediculate flaps: one medial and another lateral (Fig. 4). Afterwards, 3 to 4 cm of skin will be released, trying to preserve vascular supply.

Once released, they allow extensive rotation without difficulty. Formed flaps are rotated, one over another, towards retromammary space and their extremities fixed to muscular aponeurosis (Figs. 5 & 6).

Flaps will be also fixed among each other by sutures on their edges. If a small volume reduction is required, the tissue from the flap edge will be resected, forming the mammary cone. Lower edges will also be fixed to thoracic wall by means of sutures.

Then, skin accommodation is performed with the aid of Allis forceps or by digital maneuver, resecting as required. At this point, for the surgeon's safety, we

recommend that cutaneous flaps are resected in segments (Fig. 7).

If previous resection is chosen, compensation triangles may be resected at the beginning of the surgery and readapted when required. If posterior skin resection is chosen, triangles will be prepared after median segment closure, being their length always of enough size for the mammary fold accommodation (Figs. 8 & 9).

Closure is made by Monocryl intradermic sutures covered with Micropore strips. The use of an elastic brassiere should be recommended for a minimum of 2 months.

COMPLICATIONS

Five per cent of the patients had a small lipolysis of lateral flap extremity that did not compromise, however, the final result nor mamma shape.

Three per cent of the cases presented discreet mammary asymmetry, which was reoperated. In addition

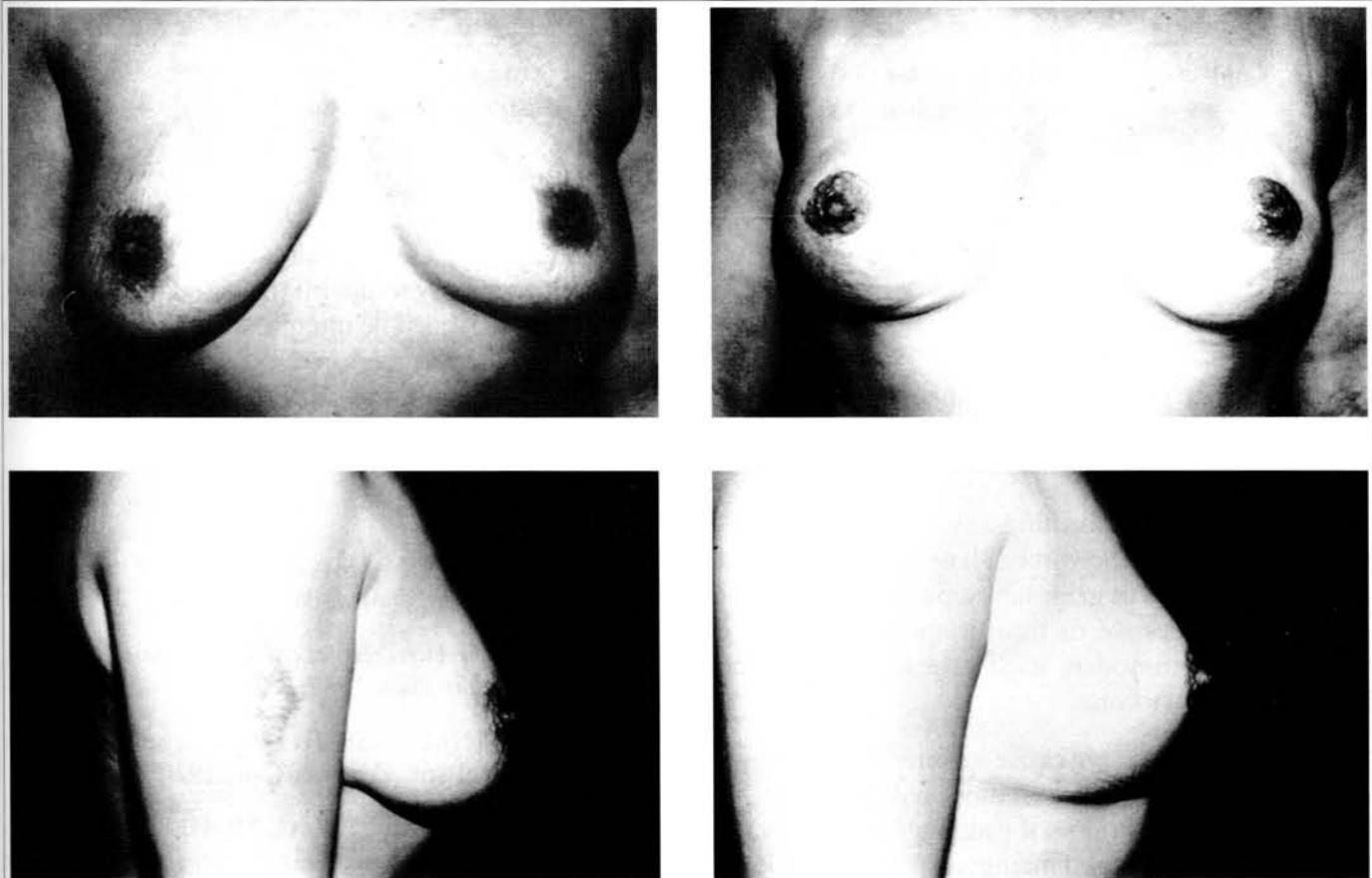


Fig. 11 - CASE 2: 32 years old patient presenting asymmetric ptosis. Pre (left) and postoperative (right).

Fig. 11 - CASO 2: paciente de 32 anos apresentando ptose com assimetria. Pré (esquerda) e pós-operatório (direita).

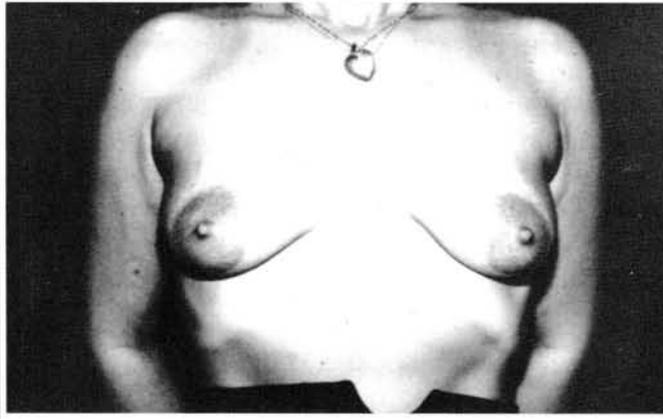


Fig. 12 - CASE 3: 23 years old patient presenting severe mammary ptosis. Pre (left) and postoperative (right).

Fig. 12 - CASO 3: paciente de 23 anos apresentando ptose mamária severa. Pré (esquerda) e pós-operatório (direita).

to that, 3% of the cases presented mammary-areola complex diagonal elongation after accommodation (around 3 to 4 months) that deserved later repair.

CONCLUSION

Our experience has shown that this technique is favorable to mammary ptosis correction, establishing a good final result both in shape and consistency.

The possibility of performing a surgery with no previous skin resection and without having to follow rigid markings provides us great safety, preventing the performance of excessive or insufficient removals once skin must accommodate itself as a function of the formed mammary cone.

With relation to scar, we chose inverted T as it allows a good lateral and medial segment redeployment, in addition to a small distance shortening between mammary-areola complex and mammary fold, always long in ptosis cases. We believe this shortening also favors

final result stabilization.

As to late form, a very small bascule, ample enough to cover mammary fold with the patient standing up, could be observed. The intercrossing of flaps forms a supporting loop at the lower pole, leading us to believe that it will prevent a great mobilization of this segment.

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