

## Single Transverse Scar Technique for Reduction Mammoplasty

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### ABSTRACT

*Material and Methods:* Ten patients with huge hypermastia subjected to transverse scar technique reduction mammoplasty (TST technique) from 2014 to 2016.

*Conclusion:* The TST is a reliable technique in reduction mammoplasty when macromastia and significant ptosis are present. It has the added benefits of avoiding the vertical scar, hiding the transverse scar in the shadow of the inferior breast, potentially avoiding or minimizing pseudoptosis, and being an expeditious treatment.

**Key Words:** Transverse scar technique – Mammoplasty.

### INTRODUCTION

The ideal reduction mammoplasty should produce a perfect breast size, shape, and projection with minimal scarring, normal nipple sensation, and ability to lactate. Ideally, it should also be easy and expeditious, free from complications, and reproducible by most surgeons.

The disadvantages of inverted-T scar technique have encouraged the development of alternative methods, such as vertical and transverse-scar reduction mammoplasties [1-17]. The vertical-scar techniques eliminate the transverse scar, but the current indications used by most surgeons limit them to patients with less ptosis who need smaller-volume reductions [2].

For larger and more ptotic breasts multiple transverse scar techniques have been described. These techniques eliminate the vertical scar [11-17]. In 1967, Robertson [11] described a mammoplasty technique for very large breasts in which an inferior flap was shaped to produce a conical breast after the excision of a central transverse wedge of hypertrophied breast.

In 1983, Hurst et al. [13] presented the first modification of the inferior flap technique of Robertson in order to eliminate one of its main disadvantages the need for nipple grafting. They preserved the nipple on a broad dermal inferior pedicle.

This paper describes our modification of the Robertson technique which is known (TST) mammoplasty and reviews the results.

### MATERIAL AND METHODS

Ten patients with huge hypermastia subjected to transverse scar technique reduction mammoplasty (TST technique) from 2014 to 2016.

#### *Criteria of the patients:*

- Age from 20 to 45 years.
- Distance between MCL to Nipple areola complex more than 36cm.
- Patients were selected for this technique if they had a minimum of 7cm between the lower aspect of the new areola and superior aspect of the old areola.
- All patients free from critical diseases.
- Mammography was done to all patients to exclude any tumors.
- Routine preoperative laboratory investigations were done.

#### *Operative technique:*

- Marking MCL.
- Marking NAC at Distance 20cm.
- Marking the inferior boundary of the flap.
- Marking the inframammary line.
- Marking the inferior pedicle with base more than 12cm.

The distance from the suprasternal notch to each nipple was measured. The new nipple position was then determined based on the existing inframammary fold and transposed to the anterior surface of the breast on what would constitute the superior flap.

The lower edge of the superior flap was marked at a distance 7 to 9cm below the inferior aspect of the new areola. The inferior pedicle was then designed with a broad base that tapered out towards the medial and lateral ends of the breast, to recruit a wide blood supply for the nipple (Fig. 1).

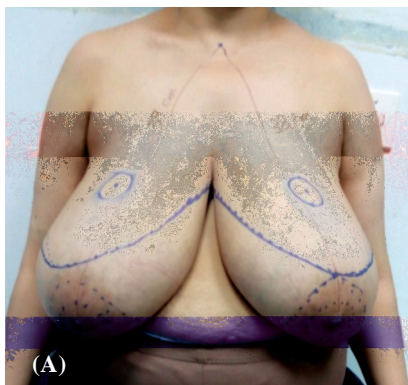
The superior flap was then incised and raised as a thin flap (1.5cm thick) up to the level of the new nipple position.

The entire central and transverse wedges of intervening breast tissue were excised as a single solid breast unit, leaving a central pyramidal cone of breast tissue beneath the NAC (Fig. 1).

The superior flap was then brought down over the inferior pedicle and sutured at the inframammary fold. A full thickness circle of skin and fat was excised from the superior flap at the site of the new nipple-areola, and the NAC complex was brought through to its new opening. This was

sutured to the opening in the superior flap. The superior flap was sutured to the inferior incision, advancing any dog-ears toward the center of the incision.

If additional fullness laterally was present, lipoplasty was performed to debulk this area. Sutures were used to obliterate the dead space laterally at the site of the lipoplasty and also at the site of the lateral wedge excision of excess breast tissue from the superior portion of the breast. This decreases the transverse diameter of the breast and enhances the projection. Proper homeostasis and inserting radivac No. 18.



(B)

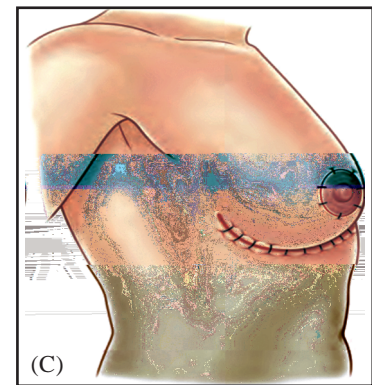


Fig. (1): Photo A showing Marking of the lower edge of the superior flap at a distance 7 to 9cm below the inferior aspect of the new areola, Photo B showing inferior pedicle, Diagrame C showing the pattern of closure by single transverse scar.

## RESULTS

A total of 10 transverse technique breast reductions were performed with the inferior pedicle technique. (BMI  $32 \pm 6$  kg/sq.m).

As described, TST was employed for breast reduction in patients with significant macromastia and breast ptosis.

The degree of ptosis was average (37cm), amount of breast tissue excised for each breast ( $1000 \pm 300$  gm) sterna notch to nipple distance demonstrates ( $37 \pm 5$  cm).

The average blood loss for TST was 500 to 700mL with an average procedure length of 2 to 4 hours, there was no apparent pseudoptosis subjectively as commonly observed with the T-scar technique.

The average follow-up time was 8 months (range 1 month to 2 years). Complications including infection, minor wound dehiscence, hematoma formation, fat necrosis, scar hypertrophy, there was no nipple loss in any patient. Two patients who underwent TST required scar revisions for removal of dog-ears laterally and revise the wide

scars. Comparison of the early result 1 week after surgery and the late result 1 year after surgery demonstrates long-term stability of the breast shape (Figs. 2,3,4).

Fig. (2): Upper photo showing preoperative huge breast, lower photo showing postoperative result after 2 months.

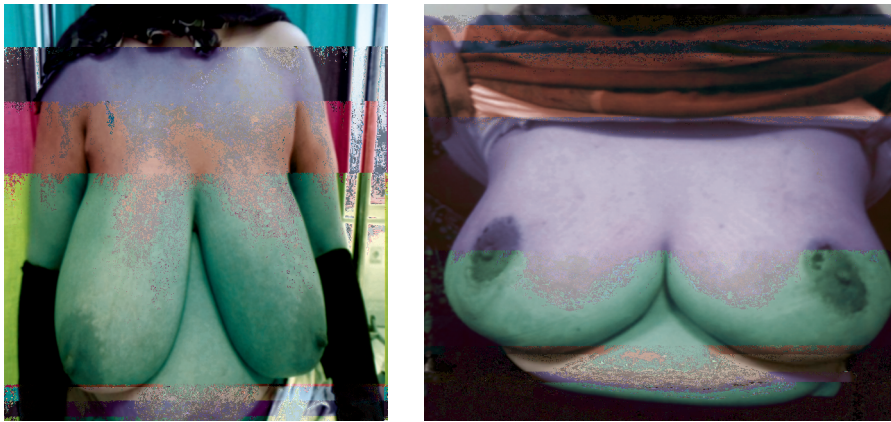


Fig. (3): Left photo showing preoperative huge breast, right photo showing postoperative result after 4 months.



Fig. (4): Left photo showing preoperative huge breast, right photo showing postoperative result after 6 months.

## DISCUSSION

The TST has the same advantage as T-scar reduction, in that it uses a wide inferior pedicle to maintain nipple-areola circulation and provides a breast mound without need for nipple grafting. In contrast to the T-scar, TST uses a superiorly based flap that once redraped and sutured to the lower incision provides a skin brassiere below the areola.

The undisturbed dermis and breast tissue at the inframammary fold is believed to resist the stretching that the vertical scar in the T-scar reduction routinely undergoes.

Also, the presence of an undisturbed inframammary fold is thought to be responsible for the prevention of pseudoptosis [19].

This technique works especially well in breast reduction cases where large mass excision is required and where marked ptosis .

TST mammoplasty can be performed rapidly and provides freedom in contouring the underlying breast.

Chalekson et al. [19] recently showed that the modified Robertson technique as described by Hurst et al. [13] does not lead to pseudoptosis, which is commonly associated with WPR. Subjectively, we have also observed minimal to no pseudoptosis with TST, although this requires further clarification by recording accurate measurements before and after the operation.

One disadvantage of TST is the occasional need for the lateral extension of the transverse scar in obese patients with Fat rolls extending into the back. Also, if lateral and medial wedge excisions of the breast parenchyma are not done adequately, the breasts can have a boxy appearance.

### Conclusion:

The TST is a reliable technique in reduction mammoplasty when macromastia and significant ptosis are present. It has the added benefits of avoiding the vertical scar, hiding the transverse scar in the shadow of the inferior breast, potentially avoiding or minimizing pseudoptosis, and being an expeditious treatment.

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