



## **ORIGINAL- ARTICLE**

# **Evaluation of using lateral based dermo- glandular flap for Free- nipple graft reduction mammoplasty.**

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### **Abstract**

**Background:** reduction mammoplasty with Free nipple grating (FNG) is A procedure of choice in patients with major hypertrophy and ptosis. The limitations of using this technique are insufficient breast projection & other complications. In this technique using lateral neuroglandular tissue from the centre tissue after excision of extra- tissues to provide a good filling and conical breast with adequate projection.

**Method:** pre-operative markings were made based on principles of breast reduction. After the planned tissue was excised; breast remodeling was done, followed by marking for diamond lateral-based dermo- glandular flap from the centre of remain tissue; then deepitheliaster & elevat of it and inset to pectoral fascia.

**Result:** 8 patients underwent Free nipple grafting with modified techniques. The inclusion criteria specified major breast hypertrophy and ptosis more than 1500 gm per side. The nipple areola transposition greater than 15 cm. There is no obvious complication rather than superficial sloughing of the nipple areola grafting that healed spontaneously; and patients were satisfied with relief of symptoms as well as the shape and breast projection.

**Conclusion:** The lateral based neuroglandular flap for free nipple graft reduction mammoplasty yield a good breast upper pole with adequate projection leaving no complication this method is effective for major breast hypertrophy with ptosis especially for nipple- areals transposition greater than 15 cm.

**Keywords:** Hyper trophy, Ptosis, Reduction Mammoplasty, Free nipple graft.

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## **1 | INTRODUCTION**

Many breast reductions have been performed successfully in outpatient setting and have been safely combined with additional procedures. (1) (2) Reduction mammoplasty can not only improve the appearance; but also reduced the symptoms from hypertrophy. Free nipple graft is one of these procedures used to treat major hypertrophy with, ptosis (3). A Greater number of- modifications to the technique have been described to solve the problem (4) (5). However, these techniques have been used to

increase breast projection due to the central and inferior resection of glandular tissue thus has sagged down we design a new method for increase breast projection with major hypertrophy and ptosis whose nipple areola transposition greater than 15 cm; our modification result in a well contoured breast with no complication.

## **2 | METHODOLOGY**

In this study our nine patients who were admitted to the outpatient clinic were pre-operatively evaluated patients' demographics, including age, (B M I) body mass index, size of reduction, nipple areola complex position, complications post operation and breast shape. All our patient.had no history of radiations.

All patient had symptoms& signs of breast hypertrophy including .... neck, back and shoulder pain (1) inflammatory (2) macerations., difficulty with breathing during exercise (3) and great psychological burden because of unaesthetics appearance (4). Inclusion criteria were: (1) major breast hypertrophy and ptosis with nipple areole complex transposition greater than 15 cm, strong desire to shrink her breast (2).

The pre-operative mark; was performed with the use of a wise pattern. Pre-operative marking was made with patients in standing position. The supra sternal notch, sternal midline and clavicle- nipple line was marked.

The arm may be raised to help determined lateral border of breast in those with significant excess lateral breast tissue. The inframmary mammary fold (IMF), anterior projection is marked by using flexible ruler positioned under breast. The new nipple positioned on I M F & areoler was designed around anipple with 2-4 cm in diameter. The vertical axis of breast marked beneath I M F & with the direction of the breast midline.

Displaced the breast medially& laterally in related to the vertical axis of breast below the I M F. the lateral and medial displacements determined the deep: the lized are in which lateral based dermulganduler flap was be designed. The length of each line 7-8 cm from the new nipple to the I M F& make together a 90 angle with anew nipple. The remaining tissue below these limbs marked in a keel. Shaped pattern extended from breast cleft with 2 cm a part from n contralateral breast tissue and extended to the lateral breast border (Figer 1).

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**Figur 1.** Pre-operative marking

After the nipple- arealer complex (NAC) was harvested from the deep dermal layer as a full thickness skin graft; the area between the lateral & medial extention of breast was separated from pectoral fascia by blunt dissection; then the lateral based derma glanduler flap seperated in adiamend shap from n medial flap as alateral based pedided & continued seperated to the cover the second intercosted space, passed & and sutured medially& backed to the pucket done in the medical aspect of the breast and sutured to the fascia of the pectorals major muscle this procedure increased upper: pole fullness and decrease lateral flattened and extension of the breast with adequate projection and lifting Figer(2) .The medial flap then sutured to the lateral flap and complete the wise pattern shape by sutured the middle portion and hooked vertically and turned 90 inferiorly and sutured to the I M F (inframammary fold) and formed new breast inferior pole with vertical T- incision.



**Figur (2:A).** preparation of dermoglanduler flap and suturing to pectorals muscle fascia.

Finally, the new NAC was sutured in the new position was marked off at 4- 4.5 cm in adiameter. A tie over bolster dressing with pressure was applied over each graft (Figure 3). Post-operative a drainage was performed then remove the drains after 5 days, unpacking the tie- over bolster dressing at 5 day also. Sutures used over all absorbable with 4-0 vicryles& no need to remove only the externally sutured remove at 14- 21 days.



**Figur (2: B)**

### 3 | RESULTS

The amount of resected tissue as an average range from 1000 g per each breast and more in 2 cases the amount of resection was more than 2000 g per each breast and in one of our case (female} 55 years); the amount f resection was 7000- 1500 g/ each breast and totally 15 kg with very good improvement in symptoms post op& good aesthetic and functional result. The distance from the sternal notch to the new nipple position was 21- 23 cm, and the distance from the new nipple to the original one was 15 cm. I evaluated the complication on the ten days post op. and one-month post op.; neither of them experienced NAC graft loss, nipple necrosis, infection or were dehiscence just only superficial NAC grafting sluyghing that resolved with the time and pass sluyghing that resolved with the line and pass smoothy. The scar of wise pattern underwent primary healing and become inconspicuous gradually. Over all my patients were satisfied with the relief of their symptoms as well as with the shape, projections& decrease in lateral (7) extension of breast with improvement in contour of it.



*Case No.1 pre and post-operative result 2 months later.*

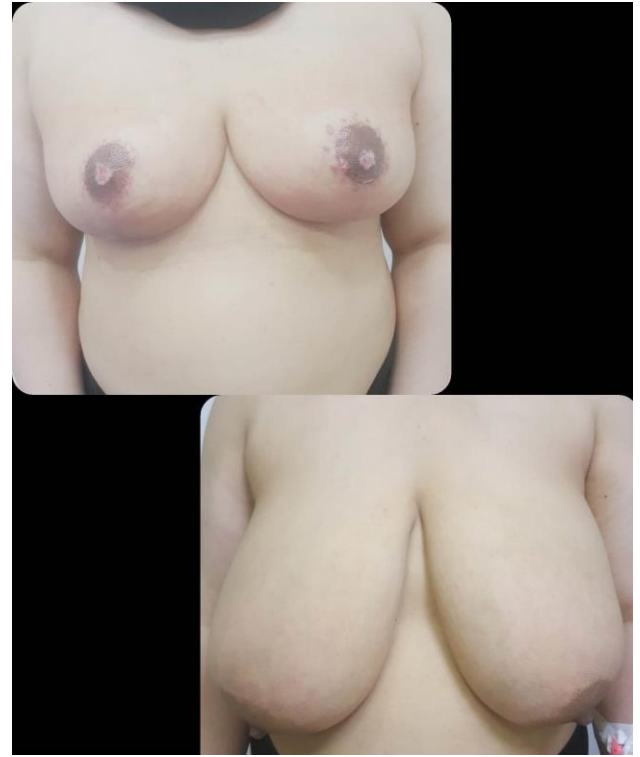


*Case No.2 2 months after reduction mammoplasty with still scar obvios and lightening with time.*

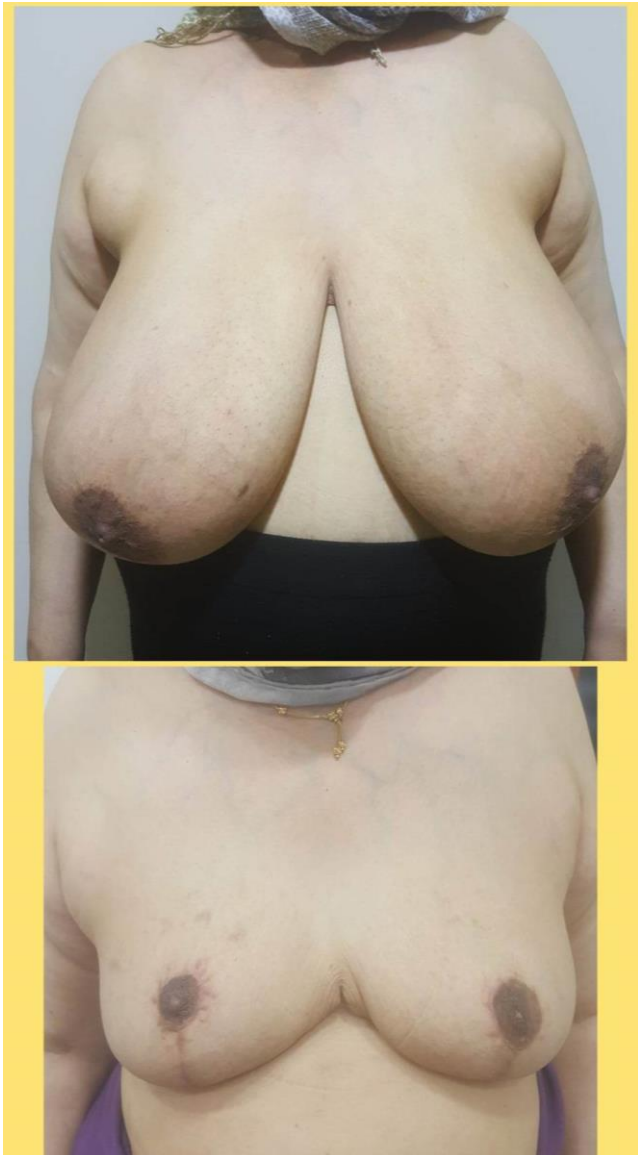




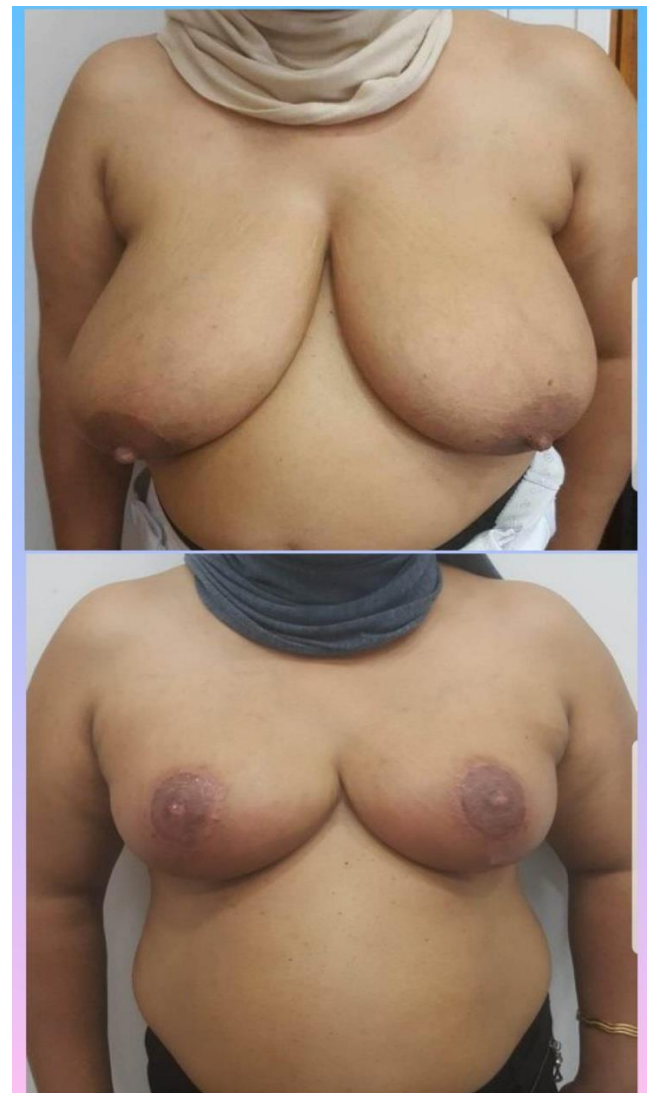
*Case No.3 after 8 months with good breast contouring and projection.*



*Case No.5 The result after 5 months.*



*Case No.4*



*Case No.6. Reduction mammoplasty 8 months after operation*

#### 4 | DISCUSSION

The object of breast plastic surgery is to restore the youthful and graceful form of the breast.

The breast hypertrophy can be a source of emotional and psychological distress for patients as well as the multiple problems related to the excess weight (tissue and glandular weight) on the lumbar area and shoulders as a result of gravity (6).

Marshall et al (7). Advocated to use free nipple areola graft based on the technique of vertical incisions on patients whose nipple-areola transposition greater than 15 cm. However, breast undergone free-nipple graft-Reduction mammoplasty can't maintain projection because lacking in central breast tissue that form the anatomical projection. Spear et al (8) had over used middle portion of the breast to increase the breast projection. In our technique; using the lateral based dermoglandular tissue flap decrease lateral extension of breast and improve contouring; and turned it medially and sutured to the medial portion of pectorals fascia upward greatly enhanced breast projection firstly and maintained of this projection secondarily. Fernanadez et al (9) put forward that better scarring was achieved with inverted T-scar pattern. Versus vertical pattern; in this technique the incision scar will be seen but it's covered and the scar usually regressed inconspicuously with 3 months; which will not be the patient's trouble.

On evaluation the post-operative complications were also favorable using this technique. One had got the conclusion that BMI 30 kg/m<sup>2</sup> and radiation therapy showed artistically high incidence of infection and smokers acquired higher significant rates of wound dehiscence (10). Our patients had not suffered radiation therapy previously so no chance of infection reduced. Faraway from the smoking made no rate of wound dehiscence. The age and tissue resection weight did not have influence on complication. Zhao et al (11) suggested that the complication may be related to destroyed blood supply, which was due to excess excision of tissue. In this technique; we suppose that the blood supply was well reserved in our free-nipple-graft reduction mammoplasty with lateral based dermo-glandular flap. The number of

patients and short period of follow up about 9-12 months, are the major limitations in our study. It is necessary to prolong the follow-up time if possible to get the enough post-operative data which is required for our further study.

#### 5 | CONCLUSION

Our study; using lateral based dermo-glandular flap for free-nipple-graft reduction mammoplasty creates an aesthetic with adequate shape and projection and improvement in contouring of breast. We consider it may be a safe and effective technique for patients with major hypertrophy and ptosis especially whose nipple-areola transposition is greater than 15 cm.

#### REFERENCES

1. Stevens W, Gear A, Stoker D et al. (2008): Outpatient reduction mammoplasty: an eleven-year experience. *Aesth Surg J*; 28(2):171-179.
2. Serra MP, Longhi P and Sinha M (2010): Breast reduction with a superomedial pedicle and a vertical scar (Hall-Findlay's technique): Experience with 210 consecutive patients. *Ann Plast Surg*; 64:275-278
3. Karsidag S, Akcal A, Karsidag T, et al. Reduction mammoplasty using the free-nipple vertical technique for severe breast hypertrophy: improved outcomes with the dermoglandular flap. *Aesthetic Plast Surg*. 2011;35(2):254-61
4. Ozeruem OR, Anlatıcı R, Maral T, et al. Modified free nipple graft reduction mammoplasty to increase breast projection with superior and inferior dermoglandular flaps. *Ann Plast Surg* 2002;49(5):10-506.
5. Eggert E, Schuss R, Edsander-Nord A. Clinical outcome, quality of life patients' satisfaction, and aesthetic results, after reduction mammoplasty. *Scand J Plast Reconstr Surg Hand Surg*. 2009;43(4):201-6
6. Alexandre A, Leão F, Álvaro F et al. (2011): Comparative analysis of mammoplasty techniques based on the long-term effect on

- the nipple-areolar-complex to inframammary crease distance. *Rev. Bras. Cir. Plást.* 2011; 26(4): 664-9
7. Marshall WR, Notma KR, Camille K. The US health system origin and functions (M). (5th ed). New York, USA: Delmar Thomson Learning. 2002;180.
  8. Spear SL. Breast reduction: inverted-T technique. In: Thorne C, Grabb WC, Smith JW (eds) *Grabb and Smith's plastic surgery*. Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia, USA. 2007.
  9. Fernandez S, Coady L, Cohen-Shohet R, et al. Comparative outcomes and quality analysis of inverted-T and pure vertical scar techniques in superomedial pedicle reduction mammoplasty. *Ann Plast Surg.* 2016;76Suppl 4: S328.-31
  10. Zhang MX, Chen CY, Fang QQ, et al. Risk factors for complications after reduction mammoplasty: A meta-analysis. *PLoS One.* 2016;11(12): e0167746
  11. Zhao R. Qiao Q. Analysis of the complications of two kinds reduction mammoplasty, *Zhonghua Zheng Xing Wai Ke Za Zhi.* 2007;23(5):375-77

