



Reduction Mammoplasty for Macromastia

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Background

Reduction mammoplasty is the standard procedure for symptomatic breast hypertrophy and it is also used for contralateral breast summarization following breast cancer surgery.

Macromastia causes physical and emotional problems. Reduction mammoplasty can relieve back and neck pain and intertrigo. Emotional wellbeing is also improved by better self-image, participation in sports and work, and wearing regular clothes.

There is anecdotal evidence that many patients who undergo reduction mammoplasty (RM) procedures, to relieve symptoms of large breasts, also report improvement in existing back pain. Given how important back pain is as a healthcare burden, the literature which explores the relationship between RM and back pain is sparse [1].

Macromastia has been reported as a risk factor for the precipitation of back pain [2].

The literature investigating the direct relationship between RM and back pain is sparse. There are no randomised clinical trials or systematic reviews exploring the correlation between this intervention and back pain as their primary outcomes [3].

Breast hypertrophy and gigantomastia are conditions poorly understood end product of organ hormone insensitivity, genetic background and overall body weight gain. Reduction mammoplasty represents the interface between reconstructive and aes-

thetic plastic surgery. The objective of the procedure is reduction in weight, volume and improvement in aesthetic appearance of the breasts [4].

Indications of breast reduction are both physical and psychological and include; heavy pendulous breasts, neck and back pains, grooves from the pressure of the brassiere straps, chronic pains in the breasts, maceration and dermatitis in the inframammary area. The psychological reasons are a troublesome focus of attention that result in embarrassment as well as difficulties in establishing a sexual relationship [5].

Fat necrosis is a common complication and is associated with large resections.

Case Report

Case 1

A 34-year-old lady, who is married and mother of a seven-year-old child complains of bilateral mastalgia and enlarged breasts for more than one year. She also suffers back pain. On general examination, she has no obvious abnormalities. On physical examination of breasts, she has bilateral macromastia (Figure 1).

Ultrasound examination reveals hypoechoic oval-shaped soft tissue nodule at 12 o'clock in right breast (BIRADS-3) and hypoechoic oval-shaped soft tissue nodule between 2 and 3 o'clock in left breast (BIRADS-3).



Figure 1: Bilateral breast hypertrophy.

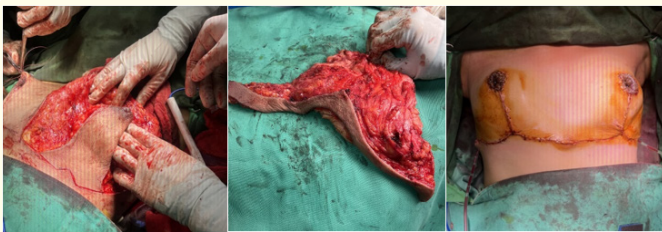


Figure 2: Intra-operative photos of reduction mammoplasty.

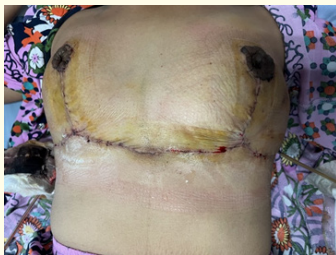


Figure 3: Post-op Day 3.

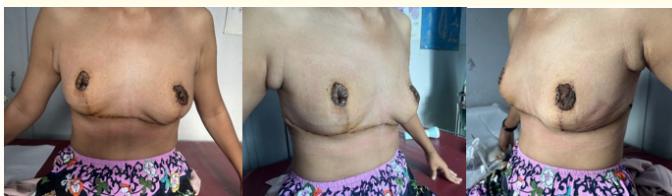


Figure 4: Post-op day 11.

She undergoes blood investigations for surgery and has no abnormalities.

She is set to undergo bilateral reduction mammoplasty with inferior pedicle.

Inferior Pedicle technique is popular among breast surgeons. With the patient standing, lines are drawn and the breast meridian is established by drawing a line from the mid-clavicle through the nipple and continuing inferiorly across the inframammary line. The new nipple position is marked along this line and the inframammary fold.

Inferior dermo-glandular pedicle is created with a ten-centimeters base at the inframammary line that gradually tapers towards the nipple areolar complex. De-epithelization is limited to the zone immediately around and inferior to the nipple areolar complex (NAC). Skin and parenchyma resections are performed medial and lateral to the pedicle but also superior to the NAC up to the level of keyhole pattern.

Immediately superior to the one centimeters de-epithelialized cuff above the NAC, the pedicle is terminated by incision down to the muscle fascia taking care not to undercut the inferior vascular base. After completion of the breast resection, the nipple areola is brought to the desired position in the keyhole pattern and the medial and lateral flaps are brought together over the pedicle and closure is begun working from the extremities towards the center.

Removed breast tissue measures 500 grams in right side and 300 grams in left side.

The post-operative period was uneventful and the patient was discharged on third post-operative day. The patient had no more back pain and was satisfied with the cosmetic result.

Case 2

A 22-year-old lady presents with mass in right breast for one year which occupy the whole left breast. On examination, there was a mass of 12 centimeters in diameter (Figure 5). Ultrasound showed large lobulated solid mass in right breast (BIRADS 4).

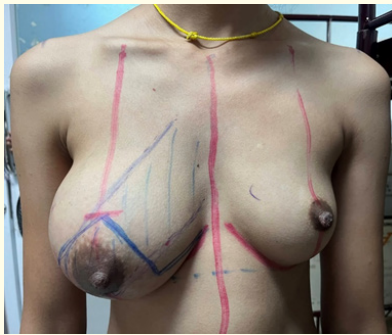


Figure 5: Benign phyllodes tumour of right breast.

Biopsy was taken in a district clinic and showed benign phyllodes tumour.

The patient underwent wide excision of the mass. Wise-pattern reduction mammoplasty with superior-medial pedicle was performed (Figure 6 and 7).



Figure 6: The intraoperative photo of the benign phyllodes tumour.

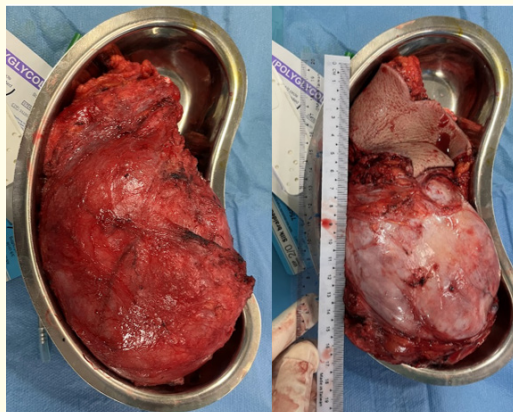


Figure 7: The specimen of benign phyllodes tumour.

Case 3

A 23-year-old married lady who had a one and had year old child complained of bilateral mastalgia, back pain and enlarged breasts. On examination she had diffuse hypertrophy of both breasts. (Bilateral macromastia).

The patient underwent bilateral Wise-pattern reduction mammoplasty with inferior pedicle.

The patient was free from back pain and was satisfied with her contour.



Figure 8: Pre-op photo of a patient with bilateral breast hypertrophy.



Figure 9: Post-op photo of bilateral reduction mammoplasty with inferior pedicles.

Discussion

Body image is the representation of one's physical appearance, the result of a combination of perceptual-neural processes, environmental, social, and psychological factors. It is expressed through the degree of care and satisfaction with one's body [6].

Symptomatic hyper-mastia affects the quality of life of millions of women worldwide. The most frequent symptoms showed by more than two-thirds of patients are shoulder grooving, and back, shoulder, and neck pain [7].

Conservative treatments like weight loss, supportive bras, medications, and physical therapy, are often ineffective in alleviating breast hypertrophy-related symptoms [8].

Reduction mammoplasty aims to improve the symptoms related to mammary hypertrophy by decreasing the breast volume, thus creating a stable and predictable breast shape. During the procedure, it is essential to reposition the nipple-areola complex (NAC) in an anatomically correct position, maintain the vascular support and the skin sensation to the NAC, and remove the excessive skin ensuring a tension-free closure.

Conclusion

Breast hypertrophy, characterized by enlarged breasts, disproportionate to the woman's weight and height caused body imbalance, physical dysfunctions, psychological disorder.

The patient suffered postural change, shoulder pain, spinal pain, and grooves from the pressure of the brassiere straps.

Reduction mammoplasty can relieve the sufferings of patients with breast hypertrophy.

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