

PROCEDURES ON THE CONTRALATERAL BREAST TO ACHIEVE SYMMETRY FOLLOWING AN UNILATERAL POSTMASTECTOMY BREAST RECONSTRUCTION

Erdem Güven¹, Burcu Çelet Özden¹, Memet Yazar², Hülya Aydın¹

¹İstanbul Tıp Fakültesi, Plastik, Rekonstrüktif ve Estetik Cerrahi Anabilim Dalı, İstanbul, Türkiye
²Şişli Etfal Eğitim ve Araştırma hastanesi, Plastik, Rekonstrüktif ve Estetik Cerrahi Kliniđi, İstanbul, Türkiye

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ABSTRACT

Introduction: Nowadays, the primary aim of unilateral breast reconstruction is achieving symmetry of the opposite breast. In conjunction with these symmetrical breast reconstructions, the degree of ptosis, breast size and reconstruction of the nipple areola complex, have become more frequently requested by the patients.

Materials and Methods: Between 2004 and 2009, 18 patients with an age range from 30 to 51, have been operated on for achieving symmetry with the contralateral breast. Primary post-mastectomy reconstructions were autologous in 8 patients, whereas 10 patients were reconstructed with implants.

For the autologous cases, contralateral reconstructions were performed about 6.5 months post-operatively. Seven patients had a reduction mammoplasty, 4 had breast augmentation with an implant, another 4 had augmentation mastopexy, and 3 patients had only mastopexy. All patients were followed closely by the oncologic team during the reconstruction period. The prostheses for augmentations were cohesive silicone gel implants.

Results: No tumors have been encountered in pathological examination of the breast reduction materials. Patients have been followed up for approximately 14 months. After one year past the operation, the physical and mammographic exams were completely normal.

Discussion: A questionnaire was filled out by the patients following the contralateral breast reconstruction. Satisfaction was observed almost in all patients emphasizing the importance of re-gaining the lost organ with as much as possible symmetry.

In this study, we outlined the importance of the detailed pre-operative planning to achieve symmetry in patients having a unilateral breast reconstruction. Procedures and methods have been discussed as well.

Key words: Mastectomy, contralateral breast, symmetry

MASTEKTOMİYİ TAKİBEN TEK TARAFLI MEME ONARIMINDAN SONRA KARŐI MEMEYE SİMETRİ AMAÇLI YAPILAN GİRİŐİMLER

ÖZET

Amaç: Günümüzde tek taraflı meme rekonstrüksiyonlarında amaç, genellikle karşı sađlam memeye simetrik yeni bir meme oluşturulmasıdır. Artan bilinç düzeyiyle paralel olarak hastalar, sarkıklığı ve boyutları benzeyen, meme ucu, areola kompleksi olan simetrik memeler talep etmektedirler. 2004 ile 2009 yılları arasında tek taraflı rekonstrüksiyon yapılan 30 ile 51 yaşları arasındaki 18 hastanın karşı sađlam memesine simetri sađlamak için cerrahi girişim yapıldı.

Materyal ve Metod: Karşı sađlam memesine girişim yapılan hastaların 8'ine otolog dokularla rekonstrüksiyon. 10 hastaya da implant ile onarım uygulanmıştı. Karşı memede simetri sađlayıcı girişimler otolog onarımdan ortalama 6,5 ay sonra yapıldı. 7 hastaya küçültme mamoplastisi, 4 hastaya sadece implant ile meme büyültme, 4 hastaya meme büyültme ile birlikte mastopeksi, ve 3 hastaya da mastopeksi yapıldı. Hastaların tamamında gerekli görüntüleme metotları kılavuzluđunda, primer tümör cerrahlarının da onayı alınarak sađlam memeye girişim yapıldı. Protez ile yapılan onarımlarda kohezif silikon jel dolu meme implantları tercih edildi.

Bulgular: Meme küçültme yapılan hastaların eksizyon materyalinin patolojik incelemesinde tümöre rastlanmadı. Hastalar ameliyat sonrası dönemde ortalama 14 ay takip edildi. Ameliyattan bir yıl sonra bazal mamografi incelemeleri ve meme muayenelerinde sorunla karşılaşılmadı.

Sonuç: Hastalarla simetri ameliyatının sonrasında yapılan ankette memnuniyetlerinin artması yaptığımız işlemlerin onkolojik tedavi sonrası kaybedilen bir organın tüm ayrıntılarıyla yeniden kazanılmasının önemini ortaya koymuştur. Bu çalışmamızda tek taraflı rekonstrüksiyon sonrasında, karşı memede simetri sađlamadaki zorlukların aşılabilmesi için ameliyat öncesi planlamanın ayrıntıları ve hastalarımızın ameliyatlarında uygulanan prosedürler detaylı olarak sunulmaktadır.

Anahtar sözcükler: mastektomi, karşı meme, simetri

Introduction

Skin sparing mastectomy was popularized in breast cancer surgery together with the advance in reconstructive plastic surgery; presenting new options for cancer patients. In addition, better communication and access to information has led patients to become more aware of the reconstructive alternatives. Reconstruction of the breast following a mastectomy in order to maintain the female body image has a great impact on a woman's quality of life. The main target nowadays is achieving breast symmetry in terms of volume and size with the opposite non-operated breast. Therefore, planning is made according to the other breast to get the symmetry as accurate as possible.

In literature, the preferred option has been achieving symmetry with operating on the intact breast following the primary post-oncologic reconstruction. In spite of all the techniques performed, many patients require additional touch-ups for getting perfect breast symmetry. 15% to 89% of contralateral intact breast procedure rates have been reported in literature (1,2). Sometimes patient preferences are considered and larger breast reconstructions might be done simultaneously or delayed.

The selected method of reconstruction greatly affects the pre-operative planning. Autologous reconstruction is the main option in ptotic and small breasts. However, contralateral breast symmetry procedures are planned if an implant has been used for reconstruction.

It is known now that women who had had a mastectomy due to breast cancer have a 2 to 5 fold increased risk of having an occult cancer in the opposite breast compared to the general population. This absolutely necessitates the close following of the intact breast oncologically (3). Occult malignancy detection during contralateral breast reconstruction might be also an advantage to the patient. Oncologic surgeon has been informed with every aspect and detail of the procedure during these periods.

Conventionally, contralateral breast procedures are commonly planned some time after the primary procedure (4). It may take months for the reconstructed breast to mature, shape, and settle with gravity. This is particularly true for the implant type of reconstruction. Some time should elapse for these two-staged procedures where adequate expansion is reached. Simultaneous modification of the contralateral breast during the primary reconstructive surgery carries some risks in terms of contour and symmetry. The reconstructed breast might change its form due to reasons such as: fat necrosis, partial flap loss, or muscle atrophy. This eventually may cause the symmetry to deteriorate in the future.

However, in spite of all aforementioned disadvantages of simultaneous contralateral breast procedures, some doctors choose to perform symmetry procedures simultaneously during the primary reconstruction. Studies supporting their preferences have been reported previously (5).

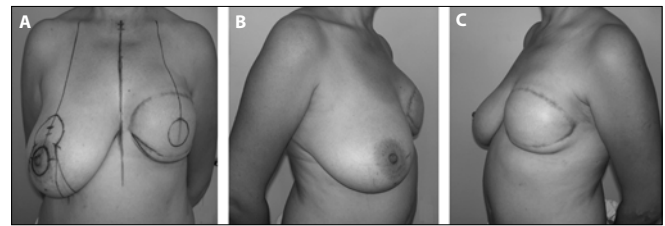


Figure 1. A. A first postoperative view of a patient which had had a left modified radical mastectomy and a simultaneous Deep Inferior Epigastric Perforator Flap (DIEP) reconstruction. At this stage, operative plan to achieve symmetry is observed. An inferior pedicle inverted T breast reduction to the other breast together with the nipple-areola reconstruction on the reconstructed breast was planned. B. Right oblique view. C. Left oblique view.

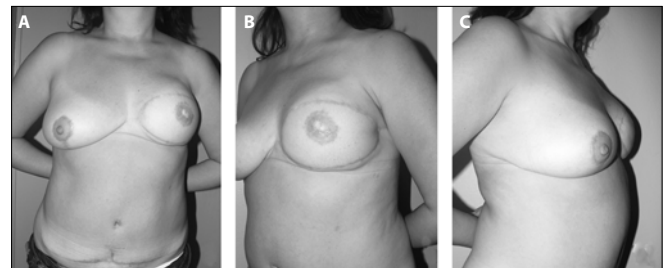


Figure 2. Post-operative second year views. A. Anteroposterior view. B. Right oblique view. C. Left oblique view.

Materials and methods

Over the last 5 years, contralateral breast procedures have been performed in 18 unilaterally reconstructed breast cancer patients. Eight of these patients were reconstructed with autologous tissue, whereas 10 of them were reconstructed with implants. Patient preferences were considered in addition to the contralateral breast volume and shape. Contralateral breast operations were done 6.5 months post-operatively in average (range 5-18 months). Seven patients had reduction mammoplasty, 4 had augmentation with an implant, another 4 had augmentation mastopexy and 3 had only mastopexy.

Patients with macromastia prior to the oncologic surgery which required reductions as contralateral procedure were reconstructed all with autologous tissue. Although simultaneous reconstructions have been performed in these cases, contralateral procedures were all delayed in these cases. Mean breast reduction was 625 grams in these patients where contralateral reduction was performed (range 475-965). Inferior pedicled technique with inverted T scar was performed on 5 patients. Superomedial technique again with an inverted T scar was done on 2 patients. One patient had a free nipple breast reduction procedure (Figures 1 and 2). All specimens were sent to the pathology lab with the quadrants tagged.

Four patients who had an implant type of contralateral augmentation procedure had a two stage reconstruction previously. In the first stage, an expander had been placed, which was later replaced with a silicone type of an implant. During the second stage, contralateral augmentation was performed with an implant as well. Implants were high profile cohesive, gel filled, and anatomic

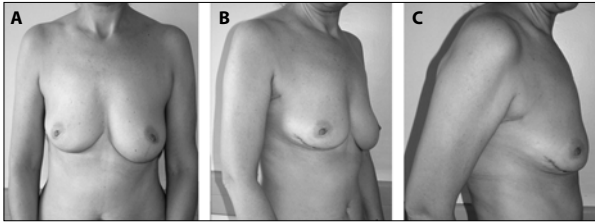


Figure 3. Preoperative views of the patient which had had a modified radical mastectomy previously. **A.** Anteroposterior **B.** Oblique and **C.** Right lateral views

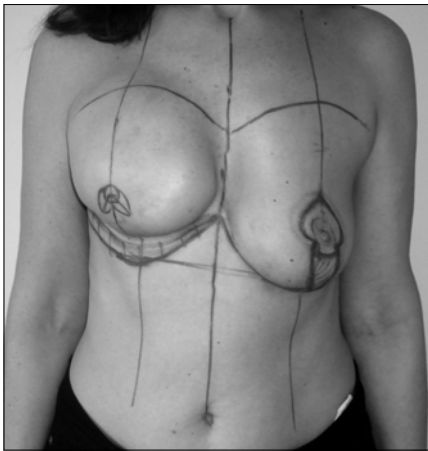


Figure 4. A patient who had had an expandable implant replacement previously. Inframammary sulcus lowering, capsule resection, a silicone gel implant placement and nipple areola reconstruction were planned. A contralateral augmentation mastopexy with an implant had been planned for the opposite breast to achieve symmetry.

shaped. They were placed in a dual plane fashion. Sized implants were used to determine the exact size of the real implant during the surgery. Mean implant volume was 195 cc (range 165-225cc).

Augmentation mastopexy was performed in two groups of patients. In the first group, three patients had autologous reconstruction together with an implant. The other group was a patient reconstructed only with an implant. For autologous reconstruction, the latissimus dorsi muscle had been harvested endoscopically through a small incision on the posterior axillary line. An expandable implant which had been placed under this muscle was replaced with a silicone gel filled implant at the second stage. On the other hand, augmentation mastopexy with an implant was performed to the other breast at this stage. Implant type was silicone gel filled, cohesive, high profile, textured and round. Mean implant size was 200 cc (range 175-225 cc).

Three patients had only a mastopexy. An expandable prosthesis had been placed during the primary oncologic surgery for these patients. At the second stage, while a silicone gel filled implant was placed, a mastopexy was done to the contralateral breast.

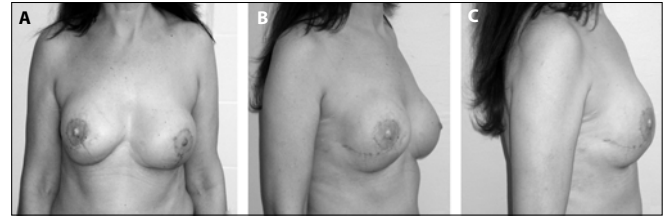


Figure 5. Post operative 14th month views of the patient. **A.** Anteroposterior **B.** Oblique **C.** Right lateral views.

Results

No malignancy was observed in 7 patients in whom reduction was performed to the contralateral breast. This has been evaluated as well. (6)

In 7 patients where reduction had been performed, no complications like bleeding, infection, or fat necrosis were observed, at all. Minor wound dehiscences were observed in two patients in which they were healed secondarily. Patients have been followed-up for 14 months on average (range 9-24 months).

A sensory deficit was observed in a patient where a 1000 gr reduction was done. A hypertrophic scar was seen in one patient who was treated with steroid injections and conservative measures.

In 11 patients with mastopexy with or without augmentation, no complications like infection, bleeding, or wound breakdown have been observed. Long term follow-ups were eventless as well.

All patients were evaluated with a basal mammography and ultrasonography in the first post-operative year. Oncological examinations and evaluations were done as well routinely.

Discussion

Postoperative satisfaction has been evaluated in mastectomy patients in different studies previously. It has been noted that symmetry is a big concern for these patients (7).

Contralateral procedures have been performed for achieving symmetry and improving aesthetic outcome (1). Patient and surgeon preferences are quite important for deciding the procedure in these cases. Typically, surgeons wait nearly 6 months for the secondary contralateral procedures in order to get optimal wound healing, maturation, and breast settlement (4).

However, some authors advocate the simultaneous contralateral procedures in order to decrease operation time and eliminate a second stage. They also think that it's important psychologically for patients to have a symmetric breast without a delay (5).

In literature, in order to augment the contralateral breast, different options are available in terms of implant location (8). In our series,

implants have been placed sub-muscularly in a dual plane fashion in order to facilitate the oncological follow-up with mammograms.

Oncologically, it has been shown that patients with unilateral breast cancer have an increased risk of having a malignancy in the other breast. Therefore, a routine baseline mammogram should be ordered after the first year follow-up. The most important point is checking and evaluating the patient regularly in order not to skip an occult tumor. Patients with a breast tumor have a 2 to 5 time increased risk of a contralateral malignancy development in contrast to the normal population (10-11)

A questionnaire has been designed in order for patients to evaluate satisfaction in terms of symmetry. They graded themselves as very good, good, moderate, and poor. In patients with implant type of reconstruction, 6 of 8 patients graded themselves as very good, and the others as good.

Increased satisfaction of the patients was observed during the follow up of the patients with these symmetry procedures. This proves the importance of achieving the symmetry in patients in addition to the psychological effects of having a new breast in these patients.

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Corresponding

Erdem Güven
Phone : +90(212) 660 99 09
Fax : +90(212) 466 58 60
E-mail : drerdemguven@gmail.com