available at www.sciencedirect.com

ScienceDirect

journal homepage: www.ejconline.com

Oral Abstracts for the 1st British Breast Cancer Research Conference

O-1 BREAST SKIN ENVELOPE NECROSIS AFTER SKIN SPARING MASTECTOMY AND IMMEDIATE BREAST RECONSTRUCTION – HOW COMMON IS IT?

T. Sircar, A. Choudhry, E. Katerinaki, G. Sterne. *Birmingham City Hospital, Birmingham, UK*

Aim: To establish the incidence of necrosis of the breast skin envelope after skin sparing mastectomy (SSM) and immediate breast reconstruction (IBR) and investigate the possible contributing factors and management of this complication.

Methods: This was a retrospective study of 59 patients who underwent SSM and IBR.

Results: Sixty-five SSM and IBR were carried out in 59 patients including 6 patients who had bilateral operations. Type of reconstructions included autologous only in 43 cases (ELD-28 and TRAM-15), autologous with implant in 18 and implant only in 4 cases.

Necrosis of the breast skin envelope was seen in 12/65 cases (18%). Skin necrosis was 50% (6/12) in smokers compared to 11% (6/53) in non-smokers. Fifty percent of patients who had type 4 (reduction pattern incision) SSM developed skin necrosis compared to 12% for type 1 (circumareolar incision) SSM. 4/5 (80%) patients who were smoker and had type 4 SSM developed skin necrosis. There was no significant difference in BMI, weight of the breast and grade of surgeon between the necrosis and non-necrosis group. Ten patients (84%) were managed conservatively and only 2 patients needed debridement and closure in theatre. The average time for the area of skin necrosis to heal was 8 weeks.

Conclusion: Breast skin envelope necrosis was noted in 18% of SSM and IBRs. Most patients can be managed conservatively. However patients should be adequately counselled preoperatively about this complication and the long time taken for it to heal. The risk is particularly high in smokers and patients having type 4 skin sparing mastectomy.

doi:10.1016/j.ejcsup.2010.06.002

O-2 SKIN REDUCING MASTECTOMY AND IMMEDIATE RECONSTRUCTION: THE EFFECT OF RADIOTHERAPY ON OUTCOME

Jo Skillman, Vijay Korwar, Robert Warner, Pilar Matey. *University Hospital Birmingham, UK*

Aim: Skin reducing mastectomy and implant reconstruction (SRMIR) is an emerging breast reconstruction technique. The de-epithelialised inferior skin flap of a 'wise' pattern mastectomy is sutured to the lower border of the pectoralis major muscle, providing a vascularized envelope for the implant.

We aimed to assess patient satisfaction following SRMIR and to determine if radiotherapy affected outcomes.

Method: A prospective database of consecutive women undergoing SRMIR was analysed. Demographics, treatment and complications were recorded. A validated breast evaluation questionnaire provided patient reported outcomes.

Results: SRMIR was performed in 98 women (120 breasts). An expander ($n = 57$) or definitive implant ($n = 41$) was used. Fifty women had contralateral surgery: 26 breast reduction/mastopexy, 1 augmentation, 23 mastectomy/reconstruction. Mean follow-up was 23 months (2–53). Radiotherapy information was available for 71 women: 43 had breast radiotherapy, 28 did not. Eleven women (11%) had early complications (six had had radiotherapy): 7 infected seroma (5 required implant removal), 2 skin necrosis and 2 haematoma. Capsular contracture requiring surgery occurred in 2 women following radiotherapy.

The questionnaire response rate was 52%. Reported satisfaction was high, with or without radiotherapy (90% very/moderately) in professional/social situations. Bilateral mastectomy and reconstruction achieved the best symmetry score (4.1/5) compared with women who had a contralateral breast reduction/mastopexy (3.3/5) or unilateral surgery (2.9/5).

Conclusions: In this series, 90% of women having SRMIR are satisfied and 97% would recommend breast reconstruction to a friend. Immediate SRMIR can provide satisfactory reconstruction in a single stage regardless of radiotherapy.

doi:10.1016/j.ejcsup.2010.06.003

O-3 IMMEDIATE BREAST RECONSTRUCTION AFTER SKIN-SPARING MASTECTOMY: ANALYSIS OF 160 CONSECUTIVE CASES

G. Jarrar, V. Salih, A. Mostafa, J. Gattuso, K. Shenton, A. Peel, R. Carpenter. *Department of Breast Surgery, St Bartholomew's Hospital, London, UK*

doi:10.1016/S1359-6349(10)00053-4

Objective: To evaluate the surgical and oncologic results for skin-sparing mastectomy with immediate breast reconstruction.

Method: One hundred and sixty breast cancer patients treated by skin-sparing mastectomy and immediate breast reconstruction between January 2003 and December 2008 were evaluated independently by one author. Reconstructive techniques included tissue expander implants ($n = 82$), autologous latissimus dorsi flaps (ALD) ($n = 37$), latissimus dorsi flaps (LD) plus implants ($n = 36$), pedicled transverse rectus abdominis myocutaneous (TRAM) flaps ($n = 1$) and deep inferior epigastric artery perforator (DIEP) flaps ($n = 4$).

Results: Of the patients whose reconstruction included implants, 9 (7.6%) developed capsular contracture, and 7 patients (6%) had wound infection leading to the loss of implant in 6. Implant deflation with subsequent removal of implant complicated 2 cases. Two of the patients who had ALD flap reconstruction (5%) developed flap atrophy. Overall, the rate of complications leading to further surgery among patients whose reconstruction included implants was higher in patients who received radiotherapy following reconstruction ($P < 0.05$), while radiotherapy did not affect the complication rate in patients who had ALD flap reconstruction ($P > 0.05$). Seven patients developed local recurrence (4%) and 11 distant metastasis (6.8%). Median overall and disease free survival was 73 and 75 months respectively.

Conclusions: Skin-sparing mastectomy with immediate reconstruction can be used for breast cancer patients, with good surgical and oncologic results. Radiotherapy has an adverse effect on the implant reconstructed breast and this along with the option for delayed reconstruction should be discussed with the patient whenever the need for adjuvant radiotherapy is predicted.

doi:10.1016/j.ejcsup.2010.06.004

O-4 'CENTRAL OVERLAP' BREAST RECONSTRUCTION – A COSMETIC AND VERSATILE ANATOMICAL IMPLANT-BASED TECHNIQUE

N.D. Appleton, R. Barnes, R.J.L. Williams. *Royal Glamorgan Hospital, Llantrisant, UK*

In women with sufficient breast height or ptosis, reconstruction after mastectomy that remodels the skin envelope can be advantageous. This has previously been described using a Wise pattern with dermal flap giving additional implant cover in the lower breast.

We have found it simpler to perform a skin-sparing mastectomy through a transverse incision above the areola. A horizontal ellipse at the upper edge of the lower skin flap of variable height is de-epithelialised, conserving or existing the nipple areola complex as appropriate. A 'low height' anatomical implant is selected to fit a width measured from anterior axillary line to inner breast margin. The edge of the lower de-epithelialised flap is sutured to the released lower border of pectoralis major over the implant. Skin is closed with the upper flap overlapping the de-epithelialised skin centrally.

Over 36 months, 65 of 105 mastectomies underwent reconstruction, mean age 59 years (range 28–70). Of 21 women undergoing single stage implant reconstruction, 15 had an overlap, 9 of whom underwent a simultaneous contralateral mammoplasty (3 delayed, 3 awaited). The implant then inserted was on average 221 g smaller than the excised breast weight (range 0–655). When compared to our expander reconstructions, a single procedure reduced average aggregate theatre time from 187 to 138 min and hospital stay from 4 to 3 nights, with associated better patient and surgeon satisfaction. Serious infection related complications were reduced from 25% to 14%.

The described technique provides a cosmetically attractive and effective method of breast reconstruction.

doi:10.1016/j.ejcsup.2010.06.005

O-5 EFFICACY OF BREAST-VOLUME DISPLACEMENT USING AN EXTENDED GLANDULAR FLAP AFTER BREAST CONSERVING SURGERY FOR JAPANESE WOMEN WITH SMALL BREAST

Tomoko Ogawa. *Department of Breast Surgery, Mie University Graduate School of Medicine, Japan*

Many Japanese women have small and densely glandular breasts. A dense glandular breast can be mobilized easily by advancing the breast tissue into the excision cavity without a risk of necrosis. On the other hand, clothing that shows the décolletage is not popular in Japan, so it is possible to use adipose tissue from the subclavicular area for breast remodeling. We call the mammary gland including fat in this subclavicular area, an extended glandular flap, and are using it for volume displacement for breast-conserving reconstruction in the upper portion of the breast. We report the usefulness of this flap.

Methods: The subjects consisted of 22 patients with breast cancer in the upper portion, who underwent remodeling using an extended glandular flap after excision of more than 20% of their breast volume. The surgery proceeded as follows: before the operation, the upper edge of the breast at the subclavicular area is drawn with the patient in the standing position. After breast excision, the extended glandular flap is made by undermining the breast from both the skin and the pectoralis fascia until the marking of subclavicular area. Afterwards, the remodeling of the breast is done using the flap.

Results: The cosmetic results at more than 1 year after the operation were found to be excellent in 22.7%, good in 54.5%, fair in 13.6%, and poor in 9%.

Conclusion: This surgical modality demonstrated good cosmetic results. We believe this surgical modality for small breasts to be both simple to perform and effective.

doi:10.1016/j.ejcsup.2010.06.006

O-6 ONCOLOGICAL, CLINICAL AND QUALITY OF LIFE OUTCOMES AFTER IMMEDIATE BREAST RECONSTRUCTION

H.M. Heneghan, R. Lyons, C. Malone, R. McLaughlin, K.J. Sweeney, M.J. Kerin. *Department of Surgery, Galway University Hospital, Galway, Ireland*