been utilized successfully. Vein grafts or a turndown of the external jugular vein may be required to establish venous drainage. The success of both the free TRAM flap and the supercharged flap is totally dependent on the quality and availability of the recipient vessels. A short pedicle may cause difficulty in shaping and positioning the breast, possibly requiring the use of intrapositional vein grafts. Radiation and previous extensive obliterative surgery may cause further problems in finding reliable recipient vessels.

The "recharged" TRAM flap was designed with the intention of providing transmidline blood flow augmentation independent of recipient vessels in the axilla. The recharged TRAM flap allows increased blood flow to the remote areas of the flap (as well as augmented venous outflow) by means of a transmidline retrograde microvascular loop anastomosis of the deep inferior epigastric arteries and veins. The recharged TRAM flap allowes a safe use of the whole abdominal ellipse, with minimal risks of total failure and requiring less muscle sacrifice and traumatic dissection than the double pedicle TRAM.

The author will present the experience of his Division on TRAM flap for breast reconstruction, including indications, contraindications, advantages and disadvantages of the above-described techniques.

111 ORAL

Immediate reconstruction in breast cancer surgery. Three hundred consecutive cases using prostheses and flaps

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Immediate breast reconstruction after cancer surgery gives the best results from the point of wiew of life quality. Reconstruction is necessary not only after total mastectomy but also in several cases of partial resection, i.e. central and inferior quadrantectomy.

In our department 300 consecutive cases of breast reconstruction were performed from 01/07/1992 to 30/09/1997 (91 mastectomies; 209 quadrantectomies). After partial resection we used mammaplasty like techniques sometimes associated with contralateral breast reshaping. Recently we noted better results using selective latissimus flap after central-inferior quadrantectomy (6 cases).

After mastectomy, 59 prostheses (usually permanent expander) in submuscolar pocket without other procedures and 32 muscolocutaneous flaps (25 latissimus, 7 TRAM flaps) were carried out.

Complications were: 1 expander infection during chemotherapy which required removal of implant and delayed TRAM flap; 2 liposclerosis of zone 3 in TRAM flap; 1 light cyanosis in latissimus flap resolved by hyperbaric treatment; 1 partial necrosis in superior pedicle reduction mammaplasty like technique; 1 month later debridement, wound nearing and areola by full thickness thigh graft were performed. No complication life threatening or significantly prolonging hospitalizaztion was observed.

Lenght of operations and incidence of unsatisfactory aesthetic results are progressively decreasing.

On the basis of our experience and the data of other groups immediate reconstruction seems destined to be the treatment of choice in breast surgery, also for less technical problems.

Multidisciplinar oncological approach and informed consent are mandatory.

112 ORAL

Aesthetic results of the breast cancer conservative treatment in the lower quadrants

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Purpose: The quality of the cosmetic outcome of the breast cancer conservative treatment is strictly related to the primary location of the tumor. It's widely accepted that the lower quadrants can leave more residual deformities than the others. In order to prevent these poor results a new surgical approach has been adopted: a wide lumpectomy associated with a superior pedicle mammaplasty (with postoperative irradiation) was the treatment of choice in the last 25 cases of lower quadrants tumors.

Methods: In the last five years ('92–'97) at the Institute of Surgical Clinic I of the University of Florence 1299 cases of breast cancer have been treated: 966 with conservative procedures and 220 located in the lower quadrants (127 central, 51 outer, 42 inner). A case-control study (with a ratio 2: 1) has been settled between the cases treated with the wide excision and the postoperative irradiation and the first 25 cases with the wide excision included in a superior pedicle mammaplasty (plus postoperative irradiation). The patients were matched by age, size of the tumors, location (central, inner, outer) and radiation dose received.

Results: The results demonstrate that there is a significant improvement of the cosmetic outcomes with this kind of approach. The Authors also discuss the indication to a mono or bilateral mammaplasty, concerning the discrepancy between the level of the inframammary crease and the breast size. The poor cosmetic results of the treatment of the lower quadrants tumors can be avoided utilizing a remodeling mammaplasty which, through a redistribution of the residual breast volume, can preserve a normal appealing breast.

113 ORAL

Early experience of ultraconservative skin saving mastectomy and immediate breast and areolar reconstruction

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Ultraconservative periareolar skin saving mastectomy (SSM) and simultaneous reconstruction of the breast and areolus allows 'seamless' breast reconstruction. Between 1994–1997, 40 patients (45 (31–61) yr)+ underwent 42 SSM, axillary dissection, immediate breast reconstruction (IBR) and areolar reconstruction using a latissimus dorsi (LD) pedicle flap and tissue expander (follow up 17.7 (1–35) months). Breast resection and reconstruction was performed through a single 5–6 cm periareolar incision.

Procedures lasted 4.0 (3.5–5.5) hr and were associated with 799 (390–1900) ml blood loss. Patients were discharged at 6.6 (5–10) days. Complications* delaying discharge included skin envelope necrosis (4), infection (2) and haematoma (1). Complications were not increased by adjuvant chemotherapy or radiotherapy (11.1% chemotherapy alone, 20% radiotherapy, 15.3% no adjuvant therapy). Further procedures were performed in 23/40 patients, including nipple reconstruction (38.1%), contralateral surgery (11.9%), expander exchange (26.2%), capsulotomy (2.4%) and expander removal (2.4%). Relapses were recorded in skin flaps (2.5%), axilla (2.5%) and distant sites (5.0%).

Rates of complication, recovery, recurrence and re-operation after ultraconservative SSM and IBR compared favourably with skin-sacrificing procedures.

+ values = mean (range)

* excluding seromas

114 ORAL

QU.A.RT. versus SSM + TRAM flap immediate breast reconstruction in T2 > 3 cm n0–1 m0 breast cancer: Preliminary data

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Surgery is the primary approach for T2 breast cancer. Usually the choice between QU.A.D. and M.R.M. depends on tumor/breast ratio. At Istituto Tumori of Naples we use QU.A.D. in tumors <3 cm and M.R.M. in tumors >3 cm. Both procedures ensure adequate resection with local control, but aesthetical results may differ substantially. M.R.M. requires reconstructive surgery, often by means of a prosthesis and a second operation, QU.A.D. requires radiotherapy (QU.A.RT). SMM + TRAM flap is increasingly utilized to improve the aesthetic results by an immediate reconstruction. The purpose of this study is to correlate oncological and reconstructive outcomes of QU.A.RT and SSM + TRAM flap immediate breast reconstruction in selected cases. We are evaluating clinical (overall survival, disease free survival, relapse), cosmetic results (patient and physician satisfaction) and the cost of oncological and reconstructive outcomes (QU.A.RT vs SSM + TRAM). From 1/12/97 and 30/3/98, 45 patients with T2 (2–3 cm) breast cancer were randomly selected for the study: 20 patients had negative tumor/breast ratio and underwent SSM + TRAM flap immediate breast reconstruction; in the other 25 cases, 18 had QU.A.RT. and 7 had QU.A.D. and are waiting for R.T. These preliminary data suggested that: no native skin or TRAM flap necrosis occurred, initial feedback from the patients in both groups was positive, while psychosocial impact is under assessment.