

locally advanced breast cancer. Details of result and pattern of failure were studied. Lesser than modified radical mastectomy and meticulous radiotherapy should be the treatment of choice in locally advanced breast cancer.

376 POSTER
"Supraconservative" surgery using latissimus dorsi flap.
A series of 45 cases

S. Giard¹, M. Chauvet¹, Y. Belkacemi², J. Pion³, J. Bonnetterre³.
¹Centre O. Lambret, Breast surgery, Lille, France; ²Centre O. Lambret, Radiotherapy, Lille, France; ³Centre O. Lambret, Breast Oncology, Lille, France

Objective: To assess oncologic and cosmetic outcomes of oncoplastic surgery using hemi-mastectomy and immediate reconstruction by latissimus dorsi myocutaneous flap.

Patients and methods: From 07/95 to 01/03, 45 patients with breast cancer have an extensive partial mastectomy (larger than quadrantectomy) with immediate reconstruction of defect by latissimus dorsi flap. Patient's age range from 40 to 56 years, the mean pT size is 23.9 mm (\pm 7.3 mm), 69% have preoperative chemotherapy, the mean operating time is 172 mn (\pm 29 mn), mean hospital stay is 6.5 days (\pm 2.6 days), 44 patients have post operative radiotherapy. Histology confirm free margins in all cases and 67% have margin wider than 20 mm. Cosmetic and functional results are assessed by independent observator.

Results: immediate post operative morbidity is 4 dorsal hematoma. The mean follow-up is 3 years. There are 8 recurrences, all distant metastasis, and 3 patients are dead. Cosmetic results are assessed for the breast's shape, nipple-areola complex position and flap retraction: there is no difference in 36%, 40% and 64% for these three end-points and wide difference in 22%, 15%, and 4% (poor cosmetic results). 15% of patients have residual dorsal pain. From 33 patients asked about quality of life, 91% are satisfied and ready to do it again.

Conclusion: the use of latissimus dorsi myocutaneous flap allow wider conservative surgery with wide margins, safe oncologic results, good cosmetic outcomes and give a natural or similar breast feeling for patient.

377 POSTER
Aesthetic evaluation of conservative breast cancer treatment.
Can measuring help?

M.J. Cardoso¹, I. Leitão¹, A.J. Moura², A.C. Santos³, J. Cardoso⁴, H. Barros³, M.C. Oliveira¹. ¹Hospital de S. João, Cirurgia B, Porto, Portugal; ²Hospital Militar Regional nº1, Cirurgia, Porto, Portugal; ³Faculdade de Medicina do Porto, Serviço de Higiene e Epidemiologia, Porto, Portugal; ⁴INESC, Unidade de Telecomunicações e Multimedia, Porto, Portugal

Background: Subjective assessment of aesthetic result of breast cancer conservative treatment, in spite of being frequently used, has several pitfalls. This study aimed to identify a possible relation between objective measurements taken from the patients digital pictures and subjective classification in classes.

Material and Methods: Pictures were taken from 55 women submitted to conservative breast cancer treatment and 5 controls under the same conditions with a digital camera in four positions (front arms up and down, left and right side arms up). Previously a score (0-15) was defined and the final sum was fitted into one of four classes (bad <3, medium \geq 3 <8, good \geq 8 <13 and excellent \geq 13). In a first round each of the seven observers classified the pictures giving a final score subsequently converted into one of the four classes. In a second round, the seven observers directly classified each case in one of the four classes. Aiming at a better agreement and presuming that the intermediate classes were more difficult to differentiate, the previous classifications in four classes were recoded in three merging the "medium" and "good" classes together. For each of the 60 cases the BRA was calculated using the digital image, both with arms up and down:

$$(BRA = \sqrt{(X_r - X_l)^2 + (Y_r - Y_l)^2})$$
 with $\sqrt{\text{Square Root}}$; X_r, Y_r – from the right nipple to the sternal notch; X_l, Y_l – from left nipple to the sternal notch.

Also, the modified BRA was calculated in the two described positions:
$$\text{modified BRA} = \sqrt{BRA^2 + \text{depthDif}^2}$$
 with depthDif – Depth difference from the nipple to the line of the dorsum (profile).

For each observer, the means of BRA and of modified BRA in the two positions (arms up and arms down) were computed for each class (four or three). Means between observers were compared using variance analysis (ANOVA).

Results: The mean BRA and modified BRA in both arm positions for each class did not differ significantly between observers, either using the score classification or the direct one in four classes, with p values close to 1

(large standard deviations). Also, no difference was found when the three classes classification (score or direct) was used maintaining the p values superior to 0.05.

Conclusions: In this study the seven observers have similar average values of the BRA and the modified BRA for each of the classes giving us the impression that there is a correct allocation of patients in the four or three groups previously defined. Widening the sample will probably give us an even more accurate idea of how well the average BRA or modified BRA can relate to the described classifications.

378 POSTER
Breast conservative surgery with and without radiotherapy with early stage breast cancer: A prospective randomised multi-centre trial

C. Tinterri¹, W. Gatzemeier¹, C. Andreoli², L. Regolo¹, V. Zanini¹, I. Giorgi³, P. Valagussa⁴, A. Costa¹. For the RT 55-75 Study Group. ¹Division of Surgery and Senology, The Maugeri Foundation Pavia, Italy; ²Italian School of Senology, Milan, Italy; ³Division of Psychology, The Maugeri Foundation Pavia, Italy; ⁴Statistical Centre National Cancer Institute, Milan Italy

Breast conserving therapy (BCT) including postoperative irradiation of the remaining breast tissue is generally accepted as the treatment of choice for the vast majority of patients with early stage breast cancer, resulting in advantages of improved cosmesis and quality of life (QOL) as compared to mastectomy (MX). The question whether post operative irradiation is mandatory in all patients and, herewith, over-treating almost a half of them remains one of the most controversial issues in BCT. To further clarify the situation in January 2001 we launched a randomised prospective multi-centre study counting on long-term follow-up data of the Milan III trial comparing BCT with or without postoperative irradiation. Those data demonstrated a significant decrease of local recurrence in patients older than 55 years in comparison to the younger age group. Moreover, in patients older than 65 years the rate of local recurrence was similar in the irradiated and the control group.

Aims of the Study: Avoiding the inconvenience and the risk of side-effects of radiation therapy – encompassing the advantage of a much easier reconstruction in case of local recurrence as well – prevention of unnecessary mastectomies in hospitals where the facilities for radiation treatment are not available, decrease of radiotherapy division workload, improving of the QOL of the Patient, and reduction of treatment cost.

Patients and Methods: Until November 2003, 507 patients aged 55 to 75 years (median 64.5 years) were recruited. After surgery and informed consent patients were randomly assigned to the radiotherapy (n=255) or to the control arm (n=252) of the study. All patients and tumour characteristics are well balanced between the two arms. The randomisation procedure works entirely on-line.

Statistical considerations: A total of 1200 eligible patients will be necessary to obtain a significant difference between the treatment arms. An accrual period of 4 years has been calculated.

Endpoints: Incidence of local recurrence and second primary in the affected breast in both groups. Disease-free and overall survival. QOL evaluation.

Keywords: Breast conserving therapy, radiation treatment

Principal investigators: Alberto Costa, MD Claudio Andreoli, MD

Study and data centre: Division of Senology and Surgery The Maugeri Foundation, Via Ferrata 8, I-27100 Pavia, Italy

Corresponding author: Wolfgang Gatzemeier M.D. Division of Senology and Surgery, The Maugeri Foundation. Tel.: +39 0382 59 2272; Fax: +39 0382 59 2076; E-mail: wgatzemei@aol.com

***RT 55-75 Study Group:** G.P. Sacchetto, Division of Surgery General Hospital Alba, Italy; P. Fenaroli, Division of Surgery and Senology General Hospital Bergamo, Italy; E. Cianchetti, Division of Senology General Hospital Ortona, Italy; C. Pedrazzoli, Division of Surgery Arcispedale Santa Maria Regg Emilia; C. Amanti, Division of Surgical Science and Medical Technology University La Sapienza Rome, Italy; R. Murgo, Division of Surgery Casa Sollievo della Sofferenza Hospital S. Giovanni Rotondo, Italy; P. Sismondi, Division of Gynaecology Cancer Research Centre Turin, Italy; M. Taffurelli, Division of Surgery S. Orsola Malpighi Hospital Bologna, Italy; M.C. Orlandi, Division of Gynaecology General Hospital Cirié, Italy.