

**Sample:** According to eligibility requirement for the study, 360 people were enrolled by continuous sampling and classified into two groups (180 with mammography and 180 without mammography).

**Result:** Findings showed a significant difference between health beliefs (benefits and barrier, severity and susceptibility to breast cancer) of women who performed mammography.

**Conclusion:** Research findings indicated a relation between health beliefs and performance of mammography. Result also showed that occupation, level of education, and marital status had relation with susceptibility to breast cancer. As self-breast examination is one of the early diagnostic method in detection of breast cancer therefore, it is recommended further research be done in relation to health belief and self breast examination.

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POSTER

#### Is the presence of residual disease after breast conserving treatment predictable?

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**Introduction:** Tumour positive resection margins are one of the frequently mentioned prognostic factors for local recurrence. In these cases, a re-excision or mastectomy is usually performed in order to improve local control, although the re-excisional specimen is often free of tumour. It was the aim of this study to evaluate tumour characteristics that might be predictive for the presence of residual disease after excisional surgery. The ultimate goal was to define groups in whom additional surgery could be restricted.

**Patients and methods:** Data of 295 patients, subjected to a wire-guided excisional breast biopsy were studied. Tumour-positive margins were found in 25% of the patients. Type and size of the primary tumour, the presence of DCIS and an extensive in situ component (EIC), multifocality of the tumour and nodal status were considered as possible indicators for residual disease.

Uni- and multivariate statistical evaluation were performed as well as a stepwise logistic regression analysis.

**Results:** Residual disease was found in 51% of the patients undergoing a re-operation. Altogether 80% of the patients with positive margins (i.e. 20% of all patients intentionally treated by breast conserving therapy) were treated by mastectomy.

Overall, nodal status and the presence of an extensive in situ component were the only two variables that were statistically significant, showing odds ratios of 11 and 4 respectively.

**Conclusion:** In case of tumour positive margins, axillary involvement and an extensive in situ component in the primary tumour were predictive for residual disease. Consequently, no subgroups could be defined in whom additional surgery could be omitted, but more 'aggressive' surgical therapy is justified in patients belonging to the risk groups.

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#### Breast conserving surgery versus mastectomy: Iranian surgeons experience

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Low rates of breast conserving surgery (BCS) have been reported in Iran. This study was conducted to evaluate surgeons' preference for the type of breast cancer surgery (BCS vs. mastectomy) and predicting factors. The study population was extracted from the address list of general surgeons provided by Iranian Medical Council. Structured questionnaires were sent by mail to 300 surgeons. The questionnaire posed questions related to the surgeons including demographic data, work experience, practicing in a university hospital, number of breast cancer patients treated per year, preference of surgeon about performing mastectomy versus BCS and the reasons for avoiding BCS. In all, 83 surgeons returned back the completed questionnaire. The response rate was 27%. The results showed that only 19% of surgeons were performing BCS in their routine practice. The only predicting factor of performing BCS was the total number of breast cancer patients treated yearly by the surgeon ( $P=0.01$ ). There was no association between above mentioned variables and the use of BCS. The most frequent reasons noted for avoiding BCS were uncertainty about conservative therapy results (46%), uncertainty about the quality of available radiotherapy services (32%) and the probability of patients' in compliance for radiotherapy (32%).

In conclusion, BCS is not routinely selected by Iranian surgeons as the first and the best treatment modality. Further research for evaluating patients' outcome treated by BCS in Iran, with regard to available medical facilities and cultural factors (patients' compliance) is recommended.

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#### Use of reduction mammoplasty techniques in breast cancer conservation therapy

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**Background:** The use of reduction mammoplasty techniques for tumor quadrantectomy in case of unfavourable tumor – breast size ratio or tumor location may increase breast conservation rate and improve the cosmetic outcome of breast cancer surgery.

**Patients:** From January 1997 to March 2003 55 women (mean age: 59 years, premenopausal: 15 patients) with 59 breast cancers (4 patients had bilateral cancers) underwent tumor quadrantectomy carried out as reduction mammoplasty (and Sentinel node biopsy/axillary dissection). 10 of 55 patients had preoperative hormone (n=2) or chemotherapy (n=8) to decrease tumor size.

**Results:** There were 11 intraductal carcinomas with a mean (range) size of 35.4 mm (11–60 mm) and 46 patients with invasive carcinoma with a mean (range) size of 21.2 mm (y0–140 mm), one patient each had microinvasive cancer with DCIS and Paget carcinoma.

Reduction mammoplasties were performed unilateral (n=8) or bilateral (n=41), 6 patients with unilateral surgery had reduction of the contralateral breast following a time interval of 6–15 months. In 55 patients 102 reduction mammoplasties were performed and were Lejour reduction (n=11), superior pedicle mammoplasty (n=21), superior pedicle mammoplasty with deepithelialized rotation flap (n=5), inferior pedicle mammoplasty (n=44), inferior pedicle mammoplasty with deepithelialized island flap (n=11), central reduction mammoplasty (n=2) and central reduction with deepithelialized rotation flap (n=8). Mean (range) specimen weight was 267 g (39–1090 g), mean duration of surgery was 178 minutes. None of the histologic specimen revealed positive margins. In 4 of 55 patients bilateral cancer was diagnosed prior to surgery. In 3 of 51 patients (5.8%) an occult cancer was found in the histologic specimen of the contralateral breast (intraductal carcinoma, microinvasive and papillary carcinoma).

There were 5 postoperative complications: fatty tissue necrosis in 2 patients and delayed wound healing in 3 patients. After a median follow-up of 28 months (range 6–72 months) there were no local recurrences in the breast or axilla, one patient developed bone metastases. The postoperative cosmetic result evaluated by the patients was rated as excellent in 44/55 (80%) and good in 11/55 (20%) with no poor result. Mean postoperative cosmetic result as evaluated by 4 independent investigators on a visual analogue scale on 1 (bad result) to 10 (excellent result) was 8.7 (range 5–10).

**Conclusion:** Tumor quadrantectomy combined with reduction mammoplasty was performed when tumor size in relation to breast volume or tumor location suggested a poor cosmetic outcome. Tumor quadrantectomy performed as part of reduction mammoplasty resulted in an oncologic result comparable to quadrantectomy alone but was associated with a superior aesthetic result.

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POSTER

#### Follow up result of BCT in advanced breast cancer – an Indian experience

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**Aim:** To see, short term and long term result in survival pattern of disease progression after breast conservative treatment in locally advanced breast cancer.

**Material and Methods:** Nine hundred and sixty five (965) women with locally advanced breast cancer were treated from 1989 to 1998 at Medical College Hospital, Kolkata, India. Seventy-two (72) women underwent quadrantectomy with axillary dissection and post-op radiotherapy (Study group). Eight hundred and ninety three (893) women underwent different variety of radical mastectomy (control group). Women of both the groups received neo-adjuvant and/or adjuvant therapy. The median follow up period was 48 months.

**Results:** In study group (BCT), local recurrence and distant metastasis were 9 (12.5%) and 15 (20.8%) respectively. Death within 5 year in this group were 11 (15.2%). In the second group, the corresponding figure were 116 (12.9%) and 168 (18.8%). Death within 5 years in this group 151 (16.9%). The five years survival and overall survival rate were comparable in both the groups.

**Conclusion:** Conservative treatment (Quadrantectomy + axillary dissection + radiotherapy) is an alternative method of treatment for patients of

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

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**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 observer.

**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?

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**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:

$$(BRA = \sqrt{(Xr - XI)^2 + (Yr - YI)^2}) / \sqrt{(Xr - XI)^2 + (Yr - YI)^2}$$
  
with  $\sqrt{\phantom{x}}$  = Square Root; Xr, Yr – from the right nipple to the sternal notch; XI, YI – from left nipple to the sternal notch.

Also, the modified BRA was calculated in the two described positions: modified BRA =  $\sqrt{(BRA^2 + depthDif^2)}$ , 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

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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 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

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