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# INTRADUCTAL CARCINOMA OF THE BREAST: LONG-TERM RESULTS WITH BREAST-CONSERVING SURGERY AND DEFINITIVE IRRADIATION

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A multi-institutional collaborative study was performed of 274 intraductal breast carcinomas in 272 women. All women had undergone breast-conserving surgery, which included complete gross excision of the primary tumor, followed by definitive breast irradiation. The median follow-up time was 8.6 years. There were 42 (15%) local failures in the breast. The median interval to local failure was 5.1 years (range = 1.4 - 16.8 years). Five of the local failures occurred more than 10 years after definitive irradiation. Of the 42 local recurrences, 23 (55%) showed invasive carcinoma at the time of local recurrence, and 19 (45%) showed only non-invasive carcinoma. Actuarial outcome data is as follows.

Actuarial Outcome	5 years	10 years	12 years
Local failure	7%	16%	19%
Overall survival	99%	93%	90%
Cause-specific survival	99%	96%	96%
Freedom from distant metastases	99%	97%	97%

These results show that prolonged follow-up is required to assess the outcome of treatment for intraductal carcinoma of the breast. As local recurrences generally are salvageable with further treatment, the long-term results of definitive breast irradiation show high rates of survival and freedom from distant metastases.

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# CENTRAL SMALL SIZE BREAST CANCER: HOW TO OVERCOME THE PROBLEM OF NIPPLE AND AREOLA INVOLVEMENT.

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We report on 37 patients with small centrally located breast carcinoma or Paget disease, in whom we performed a new surgical technique at the National Cancer Institute, Milan. The surgery consisted of removal of the "central quadrant" plus the nipple/areola complex and subsequent remodelling, to achieve both oncological radicality and a good cosmetic result.

The mean age of the patients was 54 years (range 36-73), 13 were premenopausal and 24 were postmenopausal; 19 had the lesion in the right breast and 18 in the left. Tumor size was from 1-10 mm in 13 cases, 11-20 mm in 10, 21-30 mm in 2 and greater than 30 mm in 1. In 5 patients the lesions were not palpable while in the remaining 6 patients there was nipple involvement only.

The new surgical technique involves removal of nipple/areola complex and a cone of glandular tissue down to the fascia, with mobilization of a glandular flap which is rotated into the empty central area and skin graft to replace removed areola.

Thirty two patients received homolateral axillary dissection by separate cutaneous incision. The definitive histological result was: invasive ductal carcinoma (19 cases), invasive lobular carcinoma (12 cases) and Paget's disease (6 cases); in 18 (48.7%) cases there was microscopic infiltration of the nipple and in 2 (5.4%) there was infiltration of the retroareolar large ducts. Mean follow up is 32 months (range 6-60). There have been no local recurrences nor distant metastases.

This new technique provides a good cosmetic result (the grafted skin can be tattoo later to simulate areola) yet assures oncological radicality particularly since the retroareolar ducts are removed.

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# PROGNOSTIC FACTORS FOR LOCAL RECURRENCE IN PATIENTS TREATED BY BREAST CONSERVING APPROACH

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Purpose: to determine eventual prognostic factors for local recurrence in our patients and their impact on treatment policy. From Jan.80 to Dec.90, 505 women with breast cancer Stage I and II were treated as follows: quadrantectomy was performed in 295 pts, and tumorectomy in 210; postoperative breast irradiation with 50 Gy was applied in all pts, and a boost was given in 432 cases. Adjuvant chemotherapy was used in 171 cases. Median follow up was 5 years. The 6-year local control probability rate is 93%. Statistically significant prognostic factors are: the presence of an extensive intraductal component (EIC) ( $p < 0.001$ ), tumor dose ( $p < 0.025$ ), extent of surgery ( $p < 0.01$ ) and age ( $p < 0.1$ ). In tumors with EIC the extent of surgery remains significant even with TD 60 Gy. We conclude that in EIC- tumors tumorectomy results in a low local recurrence rate, whereas in EIC+ tumors a wide excision or even quadrantectomy is necessary.

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# NON PALPABLE BREAST LESIONS: ANALYSIS OF 952 OPERATED CASES.

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From March 1985 to June 1992, 952 patients with nonpalpable breast lesions were operated at the National Cancer Institute of Milan. The mammographic findings consisted of cluster microcalcifications in 506 cases (53%), suspicious opacities with irregular borders in 318 cases (33%) and opacities within microcalcifications in 128 cases (13%). In 481 cases (50.5%) the histologic findings showed benign breast disease, whereas in 471 cases (49.5%) a carcinoma was found. 182 out of 471 patients with malignant lesions (38.7%) had ductal infiltrating carcinoma, 65 (13.8%) lobular infiltrating carcinoma. Intraductal component was present in 58 cases of infiltrating carcinomas. Non infiltrating carcinomas were found in 124 cases (26.6%): 94 patients (75.8%) with intraductal carcinoma (DCIS) and 30 (24.1%) with lobular carcinoma in situ. Conservative treatment was performed in 86% of patients with invasive cancer. In case of DCIS 90% of patients underwent conservative treatment without axillary dissection and 10% total mastectomy. Frozen section was performed in 666 cases with 12.5% of discordance with respect to the final examination. 19% of invasive carcinomas had axillary lymph node involvement, but only 4 cases out of 66 N+ patients, with tumor size  $\leq 5$  mm., showed axillary metastases and only 18 cases had more than 3 metastatic nodes.

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# QUALITY ASSURANCE IN BREAST CONSERVING SURGERY

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Although BCT is widely accepted as a treatment choice for EBC, a great variation in local control rates in randomised clinical studies remains a matter of debate. This indicates that even in a standard set-up, variables in both surgery and radiotherapy influence the outcome (local control, cosmesis, complications) and stress the need for QA programs. Compared to radiotherapy, it seems to be much more difficult to standardize operative procedures but attempts should be made to reach a consensus on 'good surgical practice'. A multidisciplinary approach at the time of treatment-decision-making is essential (Joint-Clinic). Recently, a project was activated to structure the information on which the treatment decision is made, as well as the whole surgical procedure (data related to volumes, localisation and radicality of the excision, extent of the axillary dissection, closure of the breast tissue...) which have to be transmitted between surgeon, pathologist and radiotherapist. The surgical procedure was entirely coded and variations on what was considered 'essential' or 'useful' information by several large centers, were analysed. This was correlated with the surgical instructions in BC trials of several cooperative groups. In a pilot study, participating centers have tested the standardized documentation procedure on its feasibility. Based on this experience a consensus was reached and recommendations on the surgical procedure and its documentation are formulated for tumorexcision and axillary dissection, including indications of acceptable variations. These guidelines will not only be extremely useful in assessing the BC surgical procedures in a prospective way, taking corrective actions within the framework of clinical trials, but should also be an important tool in raising the standard of practice in the general population.

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# RESULTS OF HYPERTHERMIA AND REIRRADIATION IN RECURRENT BREAST CANCER

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About 40% of the patients treated with (superficial) hyperthermia (HT) suffer from locoregional recurrent breast cancer. Although most of these patients eventually will die of metastatic disease, local treatment is considered worthwhile for palliative reasons.

Since 1979, we have treated patients with recurrent breast cancer in previously irradiated areas with a combination of (relatively) low doses of RT and HT. At present, the standard treatment schedule applied in this situation is 8x4 Gy in four weeks, each fraction followed by one hour HT. The results achieved in the 126 patients treated in the period February 1981 to December 1991 were analysed. The overall CR rate in these patients was 79%. The most striking difference in CR rate was found by comparing the frequencies used for HT induction. With 2450 MHz, the CR rate was 60%, whereas this was 84% for 433 MHz. The better results achieved with 433 MHz was found to be based on an improvement in CR rate in the larger tumours: for tumours with a maximum diameter  $> 3$  cm, CR rate increased from 31% to 75%. This remarkable increase in CR rate in patients with larger tumours with the better heating technique is a strong indication for the effectivity of HT.