

that the first randomised trials, which were carried out at Guy's Hospital, indicated the need for good local control and the increased mortality from breast cancer which occurred when treatment was sub-optimal. In the first trial (E Series) 374 women aged  $\geq 50$ , with T1, T2, N0 and N1 tumours were randomised to either Halsted mastectomy and post-operative radiotherapy or wide excision and post-operative irradiation. Both groups were given 25–27 Gy to the gland fields and the wide excision group received additionally 35–38 Gy to the breast.

Hence the wide excision group had no axillary surgery and subsequent axillary irradiation using what is now regarded as a low dose of radiotherapy. The first analysis of this trial indicated that increased risk of axillary relapse was restricted to N1 cases and so a second trial was conducted with entry only for those with clinically negative axillae (N0 series). Of 255 cases entered, 133 were randomised to mastectomy and 122 to wide excision. The same radiotherapy schedule was used as in the E Series.

In the E Series, after 25 years follow-up, local relapse occurred in 26% of the mastectomy group and 50% of the wide excision group ( $\chi^2 = 21.6$ ,  $p < 0.001$ ). The breast cancer specific mortality rate at 25 years was 56% in the mastectomy group and 63% in those treated by wide excision ( $\chi^2 = 5.33$ ,  $p = 0.02$ ). For those in the second NO trial, after 25 years local relapse occurred in 18% of the mastectomy cases and 54% of the wide excision group ( $\chi^2 = 30.6$ ,  $p < 0.001$ ). There were significantly more distant relapses in the latter group ( $\chi^2 = 6.32$ ,  $p = 0.01$ ), and a significant increase in breast cancer deaths (57% versus 44%,  $\chi^2 = 4.27$ ,  $p = 0.04$ ).

These two trials, conducted before the widespread introduction of systemic adjuvant therapy, both indicate the long-term effects of inadequate primary treatment. Inadvertent failure to treat the axilla effectively led not only to significantly increased axillary relapse rates but also to more deaths from metastatic disease.

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#### **NSABP Protocol B-06: A randomized clinical trial comparing total mastectomy with lumpectomy with or without irradiation in the treatment of breast cancer – Results after 15 years of follow-up**

D.L. Wickerham, S.A. Anderson, B. Fisher, R. Margoese, T. Mamounas, N. Wolmark. *NSABP Operations Center, Pittsburgh, PA 15212, USA*

**Background:** Previous reports from Protocol B-06 conducted by the National Surgical Adjuvant Breast and Bowel Project demonstrated the worth of lumpectomy and breast irradiation in the treatment of invasive breast cancer. This report updates the findings through an average of 15 years of follow-up.

**Methods:** Patients with tumors 4 cm or less and either clinically negative or clinically positive axillary nodes were randomly assigned: 1) total mastectomy and axillary dissection, 2) lumpectomy and axillary dissection, or 3) lumpectomy and axillary dissection followed by breast irradiation. There are 1851 eligible patients with known axillary nodal status and follow-up data available.

**Results:** No significant differences were found in overall disease-free survival, distant disease-free survival, or survival between those patients who underwent total mastectomy and those treated by lumpectomy alone or lumpectomy followed by breast irradiation. After 15 years of follow-up, the cumulative incidence of ipsilateral breast tumor recurrence (IBTR) was 36% in the group treated with lumpectomy alone and 12% in the group treated by lumpectomy and breast irradiation.

**Conclusions:** The findings continue to demonstrate that lumpectomy followed by breast irradiation is an appropriate treatment for women with operable Stage I and Stage II invasive breast cancer.

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INVITED

#### **The Milan experience in surgical strategies for early breast cancer (overview on prospective trials with latest end-results)**

B. Salvadori. *Istituto Nazionale per lo Studio e la Cura dei Tumori, Milano, Italy*

This is an up-date of distant results of conservative treatment for breast cancer of limited size (2–2.5 cm in major diameter). Results are dated March 1998, according to the last report of our study control office.

Three different patient series had been entered into controlled randomized studies (Milan I, II, III). The fourth series consists of women conservatively treated in the routine (out-trial patients).

**Milan I** – Halsted Mastectomy vs. QU.A.RT (Quadrantectomy, Axillary complete dissection and Radiotherapy on the residual gland). Activated

1973. Accrual 1973–1980 – 701 cases (349 vs. 352). Median follow-up 240 months. Overall survival: Halsted 60.1% – QU.A.RT 59.6. Local Recurrences: Halsted 2.29% – QU.A.RT 8.2%.

**Milan II** – QU.A.RT vs. T.A.RT (T = tumorectomy). Activated 1985. Accrual 1985–1989 – 705 cases (360 vs 345). Median follow-up 126 months. Overall survival: QU.A.RT 79% – T.A.RT 77%. Local Recurrences: QU.A.RT 8.0% – T.A.RT 19%.

**Milan III** – QU.A.RT vs. QU.AD (no RT). Activated 1987. Accrual 1987–1989 – 567 cases (294 vs 273). Median follow-up 95 months. Overall survival: QU.A.RT 88.4% – QU.AD 88.3%. Local Recurrences: QU.A.RT 4.7% – QU.AD 17.6%.

**Out Trial series** – 1,526 cases treated by QU.A.RT (1970–1984). Median follow-up 171 months. Overall survival 69.5% Local Recurrences 9.5%.

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INVITED

#### **The impact of local control in early breast cancer. Update of the EORTC trials**

H. Bartelink. *On behalf of the EORTC Breast Cancer and Radiotherapy Cooperative Groups and the Danish Breast Cancer Cooperative Group; Department of Radiotherapy, The Netherlands Cancer Institute, Plesmanlaan 121, 1066CX Amsterdam, The Netherlands*

The EORTC trial 10801 randomized patients with stage I and II breast cancer between radical mastectomy (RM) and breast conserving therapy (BCT). The study included patients with tumors of up to 5 cm with a microscopically incomplete resection. The long term results (median follow-up 13 years) still show that the survival is similar in both treatment arms. In patients with a local recurrence treated with salvage therapy, disappointing local control and survival rates have been observed, both in those initially treated with mastectomy or breast conserving therapy. In order to investigate which patients would benefit from RM or BCT, a joint analysis was performed within the DBCCG, which carried out a similar study making it possible to analyse a total number of 1670 patients. These results showed that patients <35 yrs had a higher local recurrence rate with BCT compared with RM. The number of patients included <35 yrs, however, was very small. In all other patient categories similar local control and survival rates were observed. In the consecutive EORTC trial, investigating the value of a boost dose, which included 5569 patients, young age (<40 yrs) was again one of the major prognostic factors for local control. The major difference between the young age group and the older patient group was the higher number of patients with an initially incomplete excision and smaller volume of the resected breast tissue surrounding the tumor.

Thursday, 1 October 1998

09:30-11:30

#### **SYMPOSIUM**

### **Psychosocial issues in the management of breast cancer**

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#### **Why do cancer doctors burn out and can it be prevented?**

A.J. Ramirez. *ICRF Psychosocial Oncology Group and Department of Liaison Psychiatry, St Thomas Hospital, London, UK*

There is ongoing concern about the mental health of doctors generally. Combining the results of three recent large UK studies, the estimated prevalence of psychiatric morbidity among hospital consultants is 28%. This is similar to levels reported by junior doctors, but clearly in excess of the 18% reported among the employed general population. Cancer doctors appear to be at no greater risk of burnout and psychiatric morbidity than other consultants. This is despite the particular stresses inherent in cancer medicine arising from the frequent exposure to death and dying and the conflict between the curative goals, on which most training is based and the palliative goals of much cancer care.

Across all specialist groups, job satisfaction appears to protect significantly consultants' mental health against the adverse effects of job stress. The predominant source of job stress reported by consultants is overload and its effect on home life. Major sources of job satisfaction include dealing well with patients and relatives, having professional status and esteem, having a high level of autonomy and variety in the job. Feeling insuffi-