Wednesday, 30 September 1998 **16:00-18:00**

PARALLEL SESSION

Ductal carcinoma in situ

19 INVITED

The management of ductal carcinoma in situ

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With increased utilization of mammography, there has been a dramatic increase in the number of DCIS cases during the last 15 years. Historically, most patients were treated with mastectomy which yielded a local recurrence rate of 1%. Since the early 1980s, an increasing number of DCIS patients have been treated with breast conservation. The only published prospective randomized trial (NSABP B-17) yielded 8-yr actuarial local recurrence rates of 12% for DCIS patients treated with excision and radiation therapy and 26% for patients treated with excision alone. Local recurrence is an important event when it occurs in a patient previously treated for DCIS. Not only is local recurrence demoralizing, more importantly, since approximately 50% of all local recurrences are invasive, it is also a threat to the patient's life. Therefore, predicting patients who are likely to recur locally after breast conservation therapy is extremely important and may be useful in treatment planning. Our group studied 740 patients with DCIS seen from 1979–February 1998, in whom there have been a total of 78 recurrences. In an attempt to predict the likelihood of local recurrence, we evaluated 30 prognostic factors in breast preservation patients. Only three factors were significant independent predictors of local recurrence by multivariate analysis: pathologic classification (determined by nuclear grade and necrosis), margin width and tumor size. These three factors were then used to develop the Van Nuys Prognostic Index, a quantitative algorithm that may aid the treatment decision-making process.

20 INVITED

The role of radiotherapy in breast conserving treatment of ductal carcinoma in situ (DCIS): First results of EORTC trial 10853

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The European Organisation for Research and Treatment of Cancer (EORTC) conducted a phase III clinical trial (protocol number 10853) to investigate the role of radiotherapy in the conservative treatment of ductal carcinoma in situ (DCIS) of the breast. Women with clinically or mammographically (>70%) detected DCIS, measuring at maximum 5 cm, were treated by local excision of the lesion and then randomly assigned to radiotherapy, 50 Grays in 5 weeks to the whole breast, versus no further treatment. A total of 1010 patients were randomised between 1986 and 1996.

With a median follow-up of 47 months a reduction of ipsilateral breast cancer recurrences was seen in the radiotherapy arm, with a similar trend both for invasive and non-invasive recurrences. There was no difference between the two treatment arms for the other endpoints (regional recurrence, metastasis, death).

Conclusion: based on a short duration of follow-up radiotherapy seems to reduce the overall number of local recurrences in the conservative treatment of DCIS. However, whether this reduction is only a temporary effect, postponing the reappearance of -residual- DCIS in the breast after -incomplete- local excision, or influencing the progression of DCIS into invasive carcinoma, remains unanswered. For this preinvasive disease a longer duration of follow-up is needed.

21 ORAL

Classification of ductal carcinoma in situ of the breast in the EORTC 10853 trial: Do subtypes predict risk of recurrence? Results of the central pathology review of the EORTC 10853 DCIS trial

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The EORTC 10853 DCIS trial is a phase III randomised clinical trial which investigates breast conserving treatment of ductal carcinoma in situ (DCIS) of the breast. In the period 1986–1996 a total of 1010 patients were randomised to receive additional radiotherapy of 50 Gy to the whole breast versus no further treatment after complete local excision of the lesion.

A central pathology review was performed with the aim to classify the lesions uniformly according to a classification proposed by Holland et al (Sem Diagn Path 1994; 11(3), 167–180). This classification is based mainly on cytonuclear features, subdividing the lesions into well (I), moderate (II) and poorly (III) differentiated DCIS. Slides of a total of 839 (83%) patients have been reviewed by one of the authors. The distribution of the differentiation types is as follows: type I: 227 patients, II: 205, III: 292 patients. In 42 cases no DCIS was found; in 60 patients the lesion was considered atypical ductal hyperplasia rather than DCIS, in 26 cases a (micro) invasive lesion was found, and in 6 cases a definite diagnosis could not be made.

The correlation of the histologic subtypes to the local recurrence rate, with special interest in the invasive recurrences, will be presented.

22 ORAL

Ductal carcinoma in situ: Factors affecting recurrence

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Before the National Breast Screening Programme (NBSP) began in 1988. Ductal carcinoma in situ of the breast (DCIS) was an uncommon problem usually treated by mastectomy. Currently, increasing numbers of DCIS cases are treated by breast conserving surgery, but it is still unclear in which patients it is safe to do less than mastectomy.

Aim: To review all cases of DCIS since 1986 at our institution. Patients with recurrences were identified and an attempt made to define factors associated with recurrences.

Methods: Patients presenting with DCIS between Jan 1986–Jan 1997 were studied. The majority of patients were from the NBSP and all mammograms were reported by two consultant radiologists. Breast size, Wolfe grade pattern mammographic lesion size, lesion type and distance of lesion to nipple were recorded. One pathologist reported all specimens and recorded nuclear grade with or without necrosis, DCIS histological type, pathological size when possible and surgical excision margin involvement. A Van Nuys Prognostic score was also calculated for all cases. On review of patients' records, recurrences were identified. Mammographic, pathological and patient related factors were correlated with likelihood of recurrence by univariate analysis.

Results: 220 patients had surgery for DCIS. 67 (30%) had a mastectomy and 153 (70%) underwent breast conserving surgery (BCS). Of these 99 patients (65%) had 1 operation. 54 (33%) underwent a re-excision for incomplete initial surgery. No BCS patients had axillary surgery whilst 40 mastectomy patients underwent axillary sampling. 43 patients had adjuvant radiotherapy whilst 75 received tamoxifen. The mean follow up period was 39 months (12–131). 7 patients have died, of which only 1 was secondary to metastatic breast cancer. Of the patients who had mastectomy, none had flap recurrences whilst 2 patients exhibited axillary recurrence. In the BCS group, 20 developed local recurrence of which 7 (35%) had invasive disease. Systemic recurrence was found in 1 patient. Of the factors correlated with recurrence, significance was only noted in lesion to nipple distances >40 mm, low DCIS nuclear grade, and the use of adjuvant radiotherapy.

Conclusion: Mortality from breast cancer in our series was 0.004%. Recurrence rates of 13% in the BCS group are comparable with other studies. Low nuclear grade, >40 mm mammographic distance of lesion to nipple and adjuvant radiotherapy were the only factors found to reduce the likelihood of recurrence.