

Table 1

| Time period | 1988–1993 (n. 300) | 1994–1997 (n. 319) | 2000–2003 (n. 547) |
|----------------------------------|--------------------|--------------------|--------------------|
| Non-operative diagnosis | 59 (20%) | 142 (45%) | 439 (80%) |
| Treatment | | | |
| Mastectomy | 134 (45%) | 127 (40%) | 205 (37%) |
| Wide local excision | 123 (41%) | 141 (44%) | 294 (54%) |
| Diagnostic excision alone | 43 (14%) | 51 (16%) | 48 (9%) |
| Radiotherapy (post conservation) | 24 (15%) | 25 (13%) | 186 (54%) |
| Tamoxifen | 139 (46%) | 149 (47%) | 240 (44%) |
| 5 year LRR | | | |
| Mastectomy | 2 (1.5%) | 3 (2.5%) | 1 (0.5%) |
| Wide local excision | 12 (10%) | 17 (12%) | 19 (6.5%) |
| Diagnostic excision alone | 9 (22%) | 6 (12%) | 1 (2%) |

margin status), more aggressive surgery and increasing use of radiotherapy.

doi:10.1016/j.ejcsup.2010.06.058

O-58 FACTORS INFLUENCING LOCAL CONTROL IN PATIENTS UNDERGOING BREAST CONSERVATION SURGERY FOR DUCTAL CARCINOMA IN SITU

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Background: The aim of our study was to assess various risk factors for local recurrence (LR) in patients undergoing breast conservation surgery (BCS) for ductal carcinoma in situ (DCIS).

Materials and methods: Retrospective case note review between January 1975 and June 2008. In our hospital a margin of ≥ 10 mm is considered acceptable. Patients were divided into three groups based on pathological margin (<5 mm, 5–9 mm and ≥ 10 mm). Cox regression model for multivariate analysis of local recurrence was used with variables with significant P values (<0.05) in the univariate analysis carried out using SPSS version 16.

Results: Overall 239 women had BCS for DCIS during the above period. The median age was 59 years (40–86) and the median follow-up was 76 months (1–308). Pathological findings included median size of 11 mm (1–50), 75 cases with comedo necrosis and 5 patients with microinvasion (<1 mm). Overall 193 patients had grades recorded (44 low grade, 54 intermediate grade and 95 high grade).

Overall LR rate was 17% (40/239), of which 65% (26/40) were invasive recurrences. Thirty-one patients were \leq to 50 years and 32% (10/31) developed LR compared to 14% (30/208) in those above 50 years ($P = 0.018$). Forty-three percent of patients (6/14) with <5 mm margin developed LR compared to 12% (3/25) with 5–9 mm margin and 14% (27/188) with ≥ 10 mm margin. Four out of 12 patients with unknown margin status

developed LR. The LR rate in patients with <5 mm (6/14) margin was significantly higher compared to those with ≥ 5 mm (30/213) margin (P value < 0.012). Three out of 5 patients with microinvasion developed LR and it was statistically significant ($P = 0.034$) compared to those without microinvasion. On multivariate analysis age ≤ 50 years, <5 mm pathological margin and microinvasion were independent poor prognostic factors for local recurrence.

Conclusion: Our study shows that younger age (≤ 50 years), a clear margin <5 mm and associated microinvasion are poor prognostic factors for LR in patients undergoing breast conservation surgery for DCIS.

doi:10.1016/j.ejcsup.2010.06.059

O-59 SINGLE CENTRE EXPERIENCE OF 500 PATIENTS WITH INTRA-OPERATIVE RT-PCR BREAST SENTINEL NODE ANALYSIS

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Introduction: Tumour specific mRNA markers detected by real time reverse transcriptase-polymerase chain reaction (RT-PCR) have been used to detect breast cancer metastases in sentinel lymph nodes. We present our experience of 500 consecutive cases in a single centre.

Methods: All clinically and radiologically node negative patients who underwent sentinel node biopsy (SLNB) were included in the study over a 24-month period. SLNB was performed according to New Start guidelines. Intraoperative analysis was performed on alternate slices at 2 mm intervals, with the remaining slices sent for standard histological analysis. The GeneSearch assay (Veridex LLC, Warren, NJ) was used to detect the expression of mamoglobin (MG) and cytokeratin 19 (CK). Patients were considered SLNB positive if one or more sentinel lymph nodes were positive for either MG or CK.

Results: Sentinel lymph nodes (912) were analysed with an average of 1.8 nodes per patient. The cohort was representative

for tumour size, grade and histological type, and 26% were node positive on histology.

| | Sensitivity | Specificity | Concordance |
|-------------|-------------|-------------|-------------|
| Per node | 96% | 95% | 95% |
| Per patient | 96% | 94% | 95% |

The sensitivity for macrometastases was 99.8%.

Conclusion: Our experience of the use of RT-PCR for intraoperative analysis of sentinel lymph nodes shows a highly favourable concordance with histological analysis. It offers the ability to proceed to immediate axillary clearance and is, therefore, beneficial to patients. It is consistent and reliable. We believe intra-operative analysis should be available to all patients undergoing SLNB as part of breast cancer surgery.

doi:10.1016/j.ejcsup.2010.06.060

O-60 ONE-STEP NUCLEIC ACID AMPLIFICATION IN DETECTION OF LYMPH NODE METASTASES IN BREAST CANCER PATIENTS: ARE PATIENTS BEING OVER TREATED?

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Background and aims: One-step nucleic acid amplification (OSNA) is an assay of cytokeratin 19 mRNA for intraoperative detection of lymph node metastasis in breast cancer. Patients who have micro-metastases proceed to level 1 axillary node clearance (ANC) and those with macro-metastases or positive but inhibited results to level 3 ANC, avoiding a second operation.

Presence or absence of micro-metastasis depends on the agreed cut off point on the amplification curve. The aim of this study was to review our data following introduction of OSNA and review the outcome of ANC in patients with positive OSNA results.

Methods: Data were collected prospectively from the introduction of this technique to date (01/12/2008 to 06/05/2010). Operations have been performed by four consultant breast surgeons.

Results: Three hundred and ten patients had 641 nodes analysed in the study period. 69% had wide local excision, 28% mastectomy and 7% SNB alone. Thirty-four percent had positive sentinel nodes and had further axillary surgery. Of these 39% had micro-metastases and 61% had macro-metastases or positive but inhibited results. Of the patients with micro-metastases 10% had further positive non-sentinel nodes. 41.2% of the patients with macro-metastases or positive but inhibited results had positive non sentinel nodes.

Conclusion: Over a third of patients had positive lymph nodes detected with OSNA and underwent ANC, eliminating the need for a second operation. Only 10% of patients with micro-metastases have further positive non-sentinel nodes. National trials are underway to determine if axillary clearance should be considered the correct option for this cohort of patients.

doi:10.1016/j.ejcsup.2010.06.061

O-61 ARGON BEAM COAGULATOR IN BREAST SURGERY: EFFECT ON THE INCIDENCE OF BREAST SEROMA

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Aim: To compare the incidence of breast seroma following mastectomy, upon the use of argon beam coagulator (ABC) or conventional monopolar diathermy (MD).

Method: Data were collected retrospectively from January 2006 to August 2008 for all patients undergoing a simple mastectomy. Postoperative incidence of seroma, amount of drainage on day of discharge and number of days from drain removal to seroma formation were recorded.

Results: Fifty-six patients were studied, comparison were made for those who underwent a simple mastectomy using ABC (30 women) or MD (25 women). The two groups were similar with regard to age, type of axillary surgery and operative time. The incidence of postoperative breast seroma development was 30% in the former group and 36% in the latter. In the ABC group a high postoperative drainage (>50 ml/24 h) on the day of drain removal was associated with a higher incidence of seroma, whereas this was not observed in the MD group.

Discussion: The ABC has been recommended as tool of choice in patients undergoing mastectomy as it significantly reduces blood loss. Its impact on the incidence of breast seroma is still under scrutiny. Our results failed to show any statistically significant difference (p value = 0.275) in the incidence of breast seroma amongst the MD (36%) and the ABC (30%) group. ABC is more costly than the standard MD and their use need to be carefully considered in an era of over-stretched NHS financial budget. The need for further randomized studies is unquestionable.

doi:10.1016/j.ejcsup.2010.06.062

O-62 ONCOPLASTIC SURGERY: WHO IS DOING WHAT?

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Oncoplastic breast surgery combines plastic surgery techniques and breast cancer resection to improve cosmesis. Does its high profile reflect current practice?

Aims: Which oncoplastic procedures are being provided by whom? What are their concerns, do they agree with guidelines?

Methods: A questionnaire was distributed to members of the Association of Breast Surgery and BAPRAS.

Results: Two hundred and twenty eight surgeons responded (70 plastics (P), 158 breast (B)) of whom 41% thought oncoplastic surgery should be universally available.

Ipsilateral procedures were usually performed by general surgeons with oncoplastic training (90) or in a combined case (68). Breast surgeons were more likely to use rearrangement techniques (therapeutic mammoplasty (33%P, 40%B), Grisotti flaps (17%P, 27%B)) than plastic surgeons, who were more likely to use reconstructive procedures (LD flap (79%P, 52%B), tissue expanders (73%P, 47%B)). Therapeutic mammoplasty was felt to be under-utilized.