

### O-32. EPIDERMAL GROWTH FACTOR RECEPTOR (EGFR) EXPRESSION: PROGNOSTIC VALUE IN BREAST CANCER PATIENTS WITH LONG-TERM FOLLOW-UP

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Many studies to date have examined epidermal growth factor receptor (EGFR) expression but in relatively small numbers of breast cancer patients, with only short follow-up. We have investigated the correlation between EGFR expression and tumour characteristics, patient features and outcome in a series of women treated before 1980. 255 tumour samples were stained immunohistochemically with a mouse monoclonal, subclass IgG1 antibody, E 30 raised against purified, denatured EGFR (Biogenex, CA).

Results were classified according to the degree of tumour membrane staining and tumour cytoplasmic reactivity into scores 0, 1, 2, 3; 0 being no staining, 1- very faint reactivity, 2- distinct reactivity and 3- strong reactivity. For analysis, 0 and 1 were regarded as negative, and 2 and 3 as positive.

56 (20%) tumours showed positive immunoreactivity for EGFR. An inverse relationship between expression of EGFR and ER status was seen ( $p < 0.001$ ). EGFR was also statistically associated with histologic grade ( $p < 0.021$ ). Lymph node disease, vascular invasion ( $p = 0.515$ ), tumour size ( $p = 0.925$ ), NPI, menopausal status ( $p = 0.216$ ) and age ( $p = 0.456$ ) were not related to EGFR expression. Life table analysis showed no correlation with disease free interval or overall survival.

Despite longer-term follow-up and its association with histological grade, we have found no prognostic significance in EGFR expression in invasive breast cancer patients.

### O-33. CORE BIOPSY VERSUS FINE NEEDLE ASPIRATION CYTOLOGY (FNAC) FOR PALPABLE BREAST CANCERS. IS IMAGE GUIDANCE NECESSARY?

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Core biopsy is considered to be less sensitive than FNAC due to sampling errors and it has been suggested that image guidance may be necessary to improve its sensitivity.

Over a 2-year period, 192 consecutive patients were diagnosed as having breast cancer at St. Mary's Hospital, London. Of these, 164 cancers were palpable and 151 were biopsied using a 14G needle and Magnum BARD<sup>R</sup> gun, by one of the authors (DJH). All these patients had FNAC prior to the core biopsy. Of the 151 cancers, 49 were between 16 and 20 mm and 30 were under 15 mm in diameter (range 6–85 mm).

Of the 151 core biopsies, 149 were reported as malignant. The remaining two core biopsies were highly suspicious of carcinoma and re-biopsy using image guidance was also suspicious of malignancy. Thus free-hand core biopsy in our hands had a

sensitivity of 98.7%, significantly better than FNAC which had a sensitivity of 51.3% ( $p < 0.005$ , Wilcoxon matched pair test)

Our results show that the sensitivity of free hand core biopsy in the pre-operative detection of breast carcinoma approaches 100% even for small palpable tumours. Image guidance of core biopsies for palpable breast cancers is unnecessary. In our unit we will stop performing FNAC routinely for suspicious breast lumps.

### O-34. SURGEON DIRECTED ULTRASOUND GUIDED CORE BIOPSIES IN THE BREAST – A PROSPECTIVE STUDY

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**Aim:** The national shortage of radiologists and the need to achieve an increased pre operative diagnosis initiated this study to assess the accuracy of a surgeon undertaking ultrasound guided core biopsies of small lesions identified on mammography or U/S.

**Method:** Data was collected prospectively on the results of 282 consecutive core biopsies, on discrete lesions under 30 mm maximum diameter, performed by a single surgeon (LAD). Following imaging of the solid discrete lesion by an ultrasonographer, the surgeon directed the 14 gauge core biopsy needle into the lesion under ultrasound control. A minimum of 2 core biopsies were taken and immediately inspected for quality. All B1 or B3, B4 lesions were subjected to open biopsy [op Bx].

#### Results:

Size/Grade	B1	B2	B3	B4	B5
0–9 mm	6	49	7	1	14
10–14 mm	4	38	2		30
15–19 mm	4	32	2		27
20–29 mm	4	21	0	1	40
Total	18	140	11	2	111

**Conclusion:** The combined effort of a surgeon and ultrasonographer achieved a 93% definitive tissue diagnosis of these solid lesions under 30 mm. Surgeon directed U/S guided core biopsies is a practical solution to the increasing demands in achieving a high preoperative diagnosis and both increased our preoperative diagnosis rate of carcinomas and reduced the biopsy rate in benign lesions.

This technique saved 140 operations for benign breast lesions and 110 cancer patients only needing 1 operation. The B1 incidence was 7.7%, 5.4%, 6.1% and 6% for the various sizes with an average of 6.3%. Hence the B1 (inadequate) sample rate was independent of the size of lesion cored. Of the 18 B1 lesions, 8 turned out to be Ca including a 6 mm lesion lying on top of a breast implant. The remaining were benign. In the 11 B3 lesions, 2 turned out to be malignant and the rest were benign. Both B4 lesions were papillary Ca.