

Our aim was to measure excision biopsy rates of entirely benign RS/CSL in individual NHS Breast Screening Units within the South West Region of the UK, examining any changes occurring over time.

For the period 1988–2003 information on all benign RS/CSL which were removed by open biopsy as part of the NHS Breast Screening Programme was obtained for each unit. The number was compared with the total number of open benign biopsies performed and cancers detected. For the years 1996–2003 comparisons were made with the cancer detection rates, benign:malignant ratios and open biopsy rates.

During the period 1988–2003, 665 entirely benign RS/CSL were excised representing 14.7% of all benign biopsies. For individual units the percentage varied between 6.4% and 22.9%. For the period 1996–2003 where benign RS/CSL were diagnosed by excision biopsy there was no correlation between the number of RS/CSL per 1,000 women screened, which varied from 0.20 to 0.67, and the overall cancer detection rates, open biopsy rates and benign:malignant ratios for the individual units. From 1996 to 2003 the proportion of benign open biopsies subsequently shown to be a RS/CSL rose from 24.1% to 38.2% ($\chi^2 = 14.01$, $P < 0.001$).

With improved pre-operative diagnosis of screen-detected lesions, RS/CSL account for an increasing proportion of open biopsies for benign disease. Different rates of excision apparent between units may be related to several factors including radiological detection, non-operative diagnosis, subsequent management and pathological reporting.

O-97. Follow-up after excision of radial scars and complex sclerosing lesions of the breast

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Radial scars (RS) and complex sclerosing lesions (CSL) may be entirely benign but can simulate invasive carcinoma radiologically and in up to 30% of cases associated malignancy is present. Our aim was to identify the incidence of subsequent breast pathology after excision of a RS/CSL.

A prospective study of 163 patients (median age: 52 years) with RS/CSL was performed. 128 women were identified by the NHS Breast Screening Programme. 35 patients were identified through the symptomatic breast service.

Of the 108 patients with adequate follow-up data (median: 72 months, range: 12–156 months) three groups were identified:

Group (1): 76 patients had a benign RS/CSL: eight developed further lesions (2 invasive and 2 in situ cancers, 1 fibroadenoma, 1 CSL in the ipsi-lateral breast; 1 invasive cancer, 1 RS in the contra-lateral breast).

Group (2): 24 patients underwent wide local excision for associated malignancy: two developed a benign lesion in the contra-lateral breast

Group (3): 8 patients underwent mastectomy for associated malignancy: one developed a contra-lateral carcinoma

The incidence of subsequent malignancy of 0.44% per year (CI: 0.12–1.18) after excision of an entirely benign radial scar/complex sclerosing lesion compares with value of 0.25% per

year for an age-matched control population ($p = 0.08$). Longer follow-up of more cases is required to determine if RS/CSL is a true risk factor for subsequent malignancy.

O-98. Triple assessment of every focal asymmetrical palpable breast lesion is unnecessary in the presence of normal imaging

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The standard investigation of a breast lump is triple assessment i.e. clinical examination, breast imaging and fine needle aspiration cytology or core biopsy. It is unclear whether every focal, asymmetrical palpable breast lesion should also undergo triple assessment irrespective of imaging results. At Kettering General Hospitals, a policy of performing free-hand core biopsies (FCB) on all such lesions is followed when imaging fails to show a discrete abnormality. This study aims to examine the practice. 590 patients who underwent FCBs between January 2000 and December 2003 were retrospectively analysed. Of 262 patients who had normal imaging, (203/262) 77.48% had a normal (B1) biopsy result, (57/262) 21.76% had benign (B2) result, (1/262) 0.38% had an indeterminate (B3) result (outcome – benign) and (1/262) 0.38% had a malignant (B5) result. Of 191 patients who had benign imaging (93/191) 49% had a B1 result, (96/191) 50% had a B2 result and (2/191) 1% had a B3 result (outcome – benign and ADH). Of the 10 patients who had an indeterminate ultrasound with normal or benign mammogram, (3/10) 30% had a B1 result, (2/10) 20% had a B2 result, (2/10) 20% had a B3 result and (3/10) 30% had suspicious or malignant result.

Conclusion: It is unnecessary to perform triple assessment on patients with focal, asymmetrical palpable breast lesions when the mammograms and ultrasound scans are normal with no additional risk factors.

O-99. Intraoperative touch imprint cytology of clinically apparent sentinel node metastases: why bother?

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Intraoperative detection of sentinel node metastases by touch imprint cytology (TIC) enables an immediate decision to proceed to completion axillary lymph node dissection, thereby avoiding a second operative procedure. Time and resource constraints on already overstretched cytopathologists makes it tempting to act on the finding of clinically apparently involved sentinel nodes.

This paper compares clinical assessment of sentinel nodes by the operating surgeon and touch imprint cytology to definitive histology results.

Methods: Patients underwent sentinel node biopsy using the combination technique. Immediately after surgery, the operating consultant surgeon was asked whether the nodes were metastatic or non-metastatic. The surgeons' assessment and TIC of the nodes were compared to definitive haematoxylin and eosin (H&E) staining of the nodes to determine the accuracy thereof.

Results: 215 sentinel nodes were harvested from 125 patients. 28 patients (22.4%) of patients had metastases detectable on H&E staining, warranting completion axillary lymph node dissection. The operating surgeon detected patients with metastatic nodes with a sensitivity of 64.3% and specificity of 87.6% when compared to H&E staining. By contrast the sensitivity and specificity of touch imprint cytology was 75.8% and 100% respectively.

Conclusions: Clinical assessment of sentinel nodes to determine completion axillary dissection fails to detect more than one third of metastatic nodes, and more importantly would result in unnecessary axillary dissection in almost one in eight patients. Touch imprint cytology is modestly more sensitive than clinical assessment, but 100% specific. Use thereof would hence increase the detection of metastases, whilst avoiding unnecessary axillary lymph node dissection. Clinical assessment of sentinel nodes for determination of completion axillary lymph node dissection cannot be advocated due unacceptable specificity.

O-100. The BASO II trial of primary treatment of tumours of excellent prognosis: 2005 update

Blamey RW, Chetty U, George D, Morgan DAL, Macmillan RD, Pinder SE, Ellis IO, Mallen E, Bates T, Duffy S, Patnick J, Mitchell MJ *on behalf of the BASO II Trialists, Cancer Research UK and NHSBSP*

This trial examined additional treatments to Wide Local Excision with clear margins, in Grade I, node negative tumours of 2cm or less with clear margins (Nottingham Prognostic Index ≤ 2.4 , predicted 10 year survival 96%. Between 1992 and 2000, 1158 eligible women were randomised to a 2 x 2 design. The primary outcome measure is local recurrence (LR), defined as tumour in the treated breast.

The median follow up is 77 months (range 39–144). Survival is excellent, only 14 deaths from breast cancer, giving a 10 year actuarial survival of 96%.

LR by randomisation are:

Randomisation	n	LR	LR% PA
Radiotherapy (RT) to intact breast	570	13	0.4
No RT	568	37	1.0
Tamoxifen	214	6	0.4
No Tamoxifen	216	15	1.0
RT plus Tamoxifen	98	0	Nil
No RT, No Tamoxifen	96	9	1.4

However for those entering only to the RT or Tamoxifen comparisons, the other therapy could have been given electively, the results by treatment received are:

Received	n	LR	LR% PA
Neither therapy	175	24	2.1
RT Only	182	9	0.8
Tamoxifen only	421	17	0.6
RT plus Tamoxifen	380	3	0.1

A local recurrence rate of 2% per annum is too high from surgery alone and 4 of the 14 breast cancer deaths followed local recurrence.

Tamoxifen in the short term is as effective as RT in lowering local recurrence to very acceptable levels. Since around 20% of screen detected cancers fall into this group this result has important cost, waiting times and workload implications for Radiotherapy units, if born out by longer follow up.

O-101. Increased risk of local relapse and decreased survival after breast conserving therapy (BCT) in the under 40's

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An audit of all patients (1816) treated between 1981 and 1998 by BCT (surgery with radiotherapy to the breast) showed almost identical cause specific survival for patients in their 40's, 50's and 60's, slightly poorer for patients 70 and over, but significantly worse for patients under 40. In order to avoid bias from the effect of screening, the 152 patients under 40 have been compared with the 382 aged 40–49.

Patients under 40 were less likely to have ER rich tumours (51% v 72%, $p < 0.0001$). The younger group appeared to have higher grade tumours (9% v 23% grade 1, 61% v 44% grade 3, $p = 0.0077$) although tumour grade was known for only 59%. There was no difference in tumour size, node positivity, number of nodes involved or in the distribution of the Nottingham Prognostic Index. The younger patients were slightly more likely to have had an axillary clearance (26% v 34%, $p = 0.0731$) and more likely to have received adjuvant chemotherapy (46% v 29%, $p = 0.0007$).

Cause specific actuarial survival at 5 years was 77.6% for the younger group v 93.7%, and 72.4% v 85.4% at 10 years ($p = 0.0002$). Local relapse in the breast was more common in the younger patients; 16.4% v 4.6% at 5 years and 23.90% v 10.2% at 10 years ($p \leq 0.0001$).

Conclusions: These young patients present a problem in management as they have higher relapse rates and poorer prognosis in spite of receiving standard management.

O-102. The effect on survival of local recurrence (LR) after breast conserving surgery

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Cases which suffered prior LR have a worse survival (63% at 10 years) than those which do not (87%). This study is of 687 consecutive cases treated at Nottingham City Hospital in 1990–96 by Breast Conserving Surgery (BCS). Cases were analysed by the Nottingham Prognostic Index (NPI).

LR rates (actuarial) are given to 108 months. Survival was analysed with/without LR:

	n	n LR	% LR	% Survival		Death from breast cancer	
				No LR	LR	Relative Risk	p
EPG	144	21	15	99	81	19x	0.001
GPG	188	23	12	96	81	5x	0.089
MPGI	218	19	9	82	53	3x	0.003
MPGII	84	7	8	70	43	2x	0.085
PPG	42	9	21	65	7	2x	0.001