determine the time to reach median and quartile survival (25%, 50% and 75%, respectively).

doi:10.1016/j.ejcsup.2010.06.073

O-73 SENTINEL NODE BIOPSY MAY BE MORE SENSITIVE FOR DETECTING POSITIVE NODES THAN AXILLARY NODE SAMPLE: RESULTS FROM A RETROSPECTIVE ANALYSIS

E.J. Macaskill [a], K. Brauer [b], C.A. Purdie [c], D.C. Brown [a]. [a] *Department of Breast Surgery, Ninewells Hospital, Dundee, UK.* [b] *Department of Breast Radiology, Ninewells Hospital, Dundee, UK.* [c] *Department of Breast Pathology, Ninewells Hospital, Dundee, UK*

Background: While there have been a number of studies comparing axillary clearance with limited axillary surgery, there is little data available comparing axillary sample (ANS) with sentinel node biopsy (SNB). We report results of a retrospective audit of ANS and SNB procedures performed in a single unit on two sites over a 2 year period.

Results: In total 224 patients underwent limited axillary surgery (ANS $n = 142$ (63%); SNB $n = 82$ (36%)) from January 2008 to January 2010. Sentinel node biopsy was performed using a combination technique with blue dye and radioisotope injections.

The results shown in Table 1 show a significantly greater number of nodes taken with ANS compared with SNB. A significantly higher proportion of patients having SNB had a positive node (22% vs. 9.9%) despite similar baseline tumour characteristics (tumour size, grade and NPI) in SNB and ANS groups, and a greater number of positive nodes following ANC in the ANS group.

These results suggest that SNB is more accurate at detecting positive nodes even in low volume axillary disease. Data from 5 years (approx 500 patients) will be presented.

Table 1

	ANS $n = 142$	SNB $n = 82$	p-Value
Median nodes taken n (range)	4 (1–10)	2 (1–6)	<0.0001
Positive node(s) n of cases (%)	14 (9.9)	18 (22.0)	0.0226
Further positive nodes on ANC n of cases (%)	4 (33.3)	4 (22.2)	0.0547
Total number of positive nodes after ANC mean (range)	2.7 (1–6)	1.3 (1–2)	0.0028

doi:10.1016/j.ejcsup.2010.06.074

O-74 HOW OFTEN DOES A POSITIVE SENTINEL LYMPH NODE BIOPSY PROMPT AN ISOLATED DELAYED AXILLARY LYMPH NODE DISSECTION?

J.R. Benson, G.C. Wishart, P. Forouhi, E. Provenzano. *Cambridge Breast Unit, Addenbrooke's Hospital, Cambridge, UK*

Methods for intra-operative node assessment can avoid delayed axillary lymph node dissection (ALND) in a proportion of sentinel lymph node biopsy (SLNB) patients. Both frozen section and imprint cytology are inconsistent and of variable sensitivity compared to paraffin embedded H&E sections and have not yet been surpassed by molecular assays. Modern approaches to axillary management can contribute to reduction in absolute numbers of isolated completion ALND cases without intra-operative assessment.

A retrospective analysis was undertaken of 443 patients eligible for SLNB with clinically node negative tumours <5 cm. Patients having SLNB before neoadjuvant therapy (27) or immediate breast reconstruction (IBR) (44) were excluded from further analysis together with 15 patients undergoing single stage ALND (level I/II) due to age or co-morbidity. Most of the remaining 357 patients had an axillary ultrasound examination (301/357) with 49 proceeding directly to ALND based on positive nodal core biopsy (40), suspicious nodes with (6) or without (3) a negative biopsy. Amongst 308 patients undergoing SLNB, 73 were node positive (23%) and required completion ALND. Just over half these had an isolated delayed ALND (40), whilst 33 patients had ALND with an additional surgical procedure (re-excision, mastectomy with or without IBR). The recall rate for delayed ALND alone was <10% (40/443).

Intra-operative node assessment may be more difficult to justify for all SLNB patients in the context of contemporary surgical practices which either deselect patients for SLNB or enable any completion ALND to be performed as a component of definitive breast surgery.

doi:10.1016/j.ejcsup.2010.06.075

O-75 FINE NEEDLE ASPIRATION CYTOLOGY IS A VALUABLE ADJUNCT TO AXILLARY ULTRASOUND IN THE PREOPERATIVE STAGING OF EARLY BREAST CANCER

Morna MacNeill, Isobel Arnott, Jeremy Thomas. *Edinburgh Breast Unit, Edinburgh, UK*

Aims: To determine the predictive values of axillary fine needle aspiration (FNA) cytology and ultrasound (US) and tumour size and the influence of histological grade in the preoperative axillary staging of early breast cancer.

Patients and methods: 314 patients:119 patients had suspicious US investigated by FNA; 195 patients had normal US not investigated further preoperatively. Review of case records and discrepant cytology.

Results: Positive and negative predictive values (PPV & NPV) for US status and tumour size (*T* stage are shown in Table 1. Of 195 patients with negative axillary US 37 (19%) had metastatic nodal

Table 1

Variable	PPV (%)	NPV (%)
US suspicious vs. US negative – all cases	59	81
T1 vs. T2 – all cases	47	74
T2 cases – US suspicious vs. US negative	75	75
T1 cases – US suspicious vs. US negative	51	86

disease. Fewer than 20% of these patients had micrometastases alone. Tumour size and grade influenced node status in US-suspicious cases only.

Conclusion: Axillary US has a moderately high PPV and NPV in preoperative axillary staging. US gives false negative results in 20% of cases and only a small proportion of these can be explained by micrometastases. Taking into account tumour size improves the predictive value of the technique.

doi:10.1016/j.ejcsup.2010.06.076

O-76 BREAST RADIOTHERAPY FOR OCCULT BREAST CANCER WITH AXILLARY NODAL METASTASES – DOES IT REDUCE LOCAL RECURRENCE RATE AND INCREASE OVERALL SURVIVAL?

S. Masinghe, O. Faluyi, G. Kerr, I. Kunkler. *Western General Hospital, Edinburgh, UK*

Background: The optimal management of axillary lymph node metastases from occult breast cancer (TXN1-2M0) is uncertain and practice varies in the use of primary breast radiotherapy. We conducted a retrospective review to examine clinical outcomes for patients managed with or without primary breast radiotherapy.

Materials and methods: Case records from the Clinical Oncology database were reviewed to identify patients presenting with axillary nodal metastases but no detectable primary tumour for over the period between 1974 and 2003. Fifty three patients with TXN1-2M0 breast cancer were identified representing 0.4% of patients managed for breast cancer during this period. Of those tested, 59% had oestrogen receptor positive tumours. 77% received ipsilateral breast radiotherapy.

Results: There was a trend towards reduced ipsilateral breast tumour recurrence in patients who received radiotherapy (16% at 5 years, 23% at 10 years) compared to those who did not (36% at 5 years, 52% at 10 years). Similarly, the locoregional recurrence rate at 5 years was 28% for patients who received radiotherapy compared to 53.7% for non irradiated patients. Breast cancer specific survival was higher ($p = 0.0073$; log-rank test) in patients who received ipsilateral breast radiotherapy (72% at 5 years, 66% at 10 years) compared to those who did not (58% at 5 years, 15% at 10 years).

Conclusion: Primary breast radiotherapy may reduce ipsilateral breast tumour recurrence and increase survival in patients presenting with axillary lymph node metastases and occult breast primary (TXN1-2M0). Larger studies are needed to validate these findings.

doi:10.1016/j.ejcsup.2010.06.077

O-77 SENTINEL LYMPH NODE BIOPSY (SLNB) BEFORE PRIMARY CHEMOTHERAPY (PC) IN BREAST CANCER PATIENTS

J.R. Benson, G.C. Wishart, G. Ambler, E. Provenzano. *Cambridge Breast Unit, Addenbrooke's Hospital, Cambridge, UK*

SLNB prior to PC will minimize risk of a false negative result and allow more accurate initial staging which can guide treatment decisions for adjuvant radiotherapy and axillary surgery.

A retrospective analysis was undertaken to examine upfront SLNB amongst 46 patients with clinically node negative, non-inflammatory invasive breast cancers measuring between 2 and 5 cm on initial imaging (irrespective of modality). Axillary ultrasound was performed in most patients (43/46), 10 of whom had a negative core biopsy. Mean tumour diameter was 28.5 cm and two patients had axillary lymph node dissection (ALND) prompted by subsequent MRI size estimate (>5 cm). Dual localization methods were employed and micrometastatic foci identified on H&E sections; immunohistochemistry was not routinely performed.

The sentinel node was identified in all patients with a mean of 2.7 nodes per patient (range 1–6). A total of 13 patients had positive nodes (28%) with 10 having involvement of a single node (eight macrometastases; two micrometastases) and three patients with two separate nodes, both containing a macrometastasis (two patients) or each a macro- and micrometastasis (one patient). The mean number of nodes removed on completion ALND was 10.9 (range 7–32). Only one patient had tumour (micrometastasis) within a non-sentinel node (NSLN) and one other patient had evidence of fibrosis suggesting tumour response to PC.

A group of patients can be selected for SLNB before PC who have a relatively low axillary tumour burden at presentation. Potential downstaging with PC may result in a low incidence of NSLN involvement with viable tumour.

doi:10.1016/j.ejcsup.2010.06.078

O-78 COMPARISON BETWEEN ENDOSCOPE-ASSISTED PARTIAL MASTECTOMY WITH FILLING OF DEAD SPACE USING ABSORBABLE MESH AND CONVENTIONAL CONSERVATIVE METHOD ON COSMETIC OUTCOME IN PATIENTS WITH STAGES 1 AND 2 BREAST CANCER

Nobuyuki Takemoto [a], Ai Koyanagi [b]. [a] *Department of Breast and Endocrine Surgery, Japan Medical Alliance Higashi Saitama General Hospital, Japan.* [b] *Department of Global Health Policy, University of Tokyo, Japan*

Background and aims: Breast conservative therapy is currently the mainstream of breast cancer treatment. There is increasing interest in methods to further improve postoperative cosmesis such as endoscopic surgery which was introduced in 1994 as an alternative to Conventional Conservative Method (CCM). However, data on whether endoscopic surgery confers any additional benefit to CCM in terms of cosmesis is lacking. We compared cosmetic outcome between CCM and Endoscope-assisted Partial