surgeons have proceeded to the randomised phase of this trial, which compares SNB to conventional axillary treatment.

O-55. PREDICTING SENTINEL NODE INVOLVEMENT: MANCHESTER EXPERINCE

A.E. Elangovan, M. Wilson, W.F. Kox, L. Barr, N.J. Bundred. *University Hospital of South Manchester, UK*

Axillary lymph node status remains the most important predictors of prognosis in breast cancer patients. The introduction of sentinel node biopsy (SNB) in breast cancer management promises to confine the need for therapeutic axillary procedure to patients who have a positive SNB. Identification of patients preoperatively with positive nodes would avoid the need for a second operative procedure

Aim: To determine whether nodal status and tumour size, grade and lymphovascular (LVI) invasion predicts sentinel node involvement.

Methods: We have performed SNB procedure using a combination of isosulfan blue and radioactive isotope injection in 108 patients and have been able to localise the sentinel node in 106 patients. In 2 cases sentinel node was falsely negative.

Results: Of the 106 who had sentinel node identified, 53 had a palpable tumour and 53 had impalpable tumour. 30 patients had positive sentinel nodes. Tumour size and LVI but not tumour grade showed significant correlation with true node involvement. (Chi square test $p < 0.005$ and $p < 0.0008$ respectively.)

Size	Node +ve*	Node −ve	LVI +ve**
<10	1	26	1
11–15	4	27	7
16–20	13	15	14
>20	12	10	8

LVI = Lymphovascular invasion, *$p < 0.005$, **$p < 0.0008$

Conclusion: Lymphovascular invasion predicted for sentinel node positivity, and sentinel node biopsy is inappropriate in these cases, particularly in tumours > 2 centimetres in size.

O-56. THE CLINICAL SIGNIFICANCE OF INTERNAL MAMMARY SENTINEL NODES IN PRIMARY BREAST CANCER

J. Kollias, P.G. Gill, B. Chatterton, M.A. Bochner, P. Malycha, B.J. Coventry, G. Farshid. *Royal Adelaide Hospital, South Australia*

Introduction: Axillary lymph node status is the strongest prognostic determinant in breast cancer. Although historical studies have demonstrated the importance of internal mammary node involvement in breast cancer prognosis, internal mammary node biopsy is seldom performed. Lymphatic mapping, using lymphoscintigraphy and sentinel node biopsy (SNB) may play a role in re-defining the application of internal mammary node biopsy and primary breast cancer. The aim of this study was to determine the clinical significance of sentinel nodes (SN) identified in the internal mammary chain.

Patients and Methods: Between August 1995 and November 2000, 236 women with clinically lymph node negative primary operable breast cancer, underwent successful lymphoscintigraphy, followed by SNB in conjunction with axillary clearance. The median duration of follow-up was 21 months. The internal mammary nodes were demonstrated as the SN's in 15 cases (6.4%). Internal mammary SNB was successfully performed in 12/13 cases. The SN's were submitted for histological assessment using H and E sections and immunohistochemistry. The axillary dissection specimen was submitted for standard H and E histological sections.

Results: The prevalence of internal mammary SN's for lesions of the superior, medial, inferior and central quadrants of the breast ranged from 12–16%. Tumours situated in the lateral aspect of the breast were less likely to have SN's in the internal mammary chain (2.2%, $p < 0.005$). Access to the internal mammary chain was achieved through the lumpectomy incision in all but one case, where a separate incision was made after obtaining consent from the patient. There were no intraoperative complications relating to internal mammary SNB. In all 12 cases, the internal mammary SN's failed to demonstrate evidence of metastatic tumour involvement. In one case where both internal mammary and axillary SN's were identified, the axillary SN alone was positive for tumour. During the follow up period, one woman developed an isolated internal mammary node recurrence after 12 months. In this particular case, the SN was identified in the axillary region and did not contain metastatic tumour.

Conclusion: Although it is possible to demonstrate internal mammary SN's using lymphoscintigraphy, the clinical impact of identifying and removing these nodes appears small in this series. Further evaluation in a larger series of cases is required.

O-57. FAILURE TO IDENTIFY SENTINEL NODES AT OPERATION FOR SCREEN DETRECTED BREAST CANCERS

P.G. Gill, J. Kollias, M.A. Bochner, P. Malycha, B.J. Coventry, G. Farshid, B. Chatterton. *Royal Adelaide Hospital, South Australia*

Introduction: Sentinel node biopsy is likely to have its greatest clinical impact for small screen detected breast cancers where the prevalence of axillary lymph node metastasis is low. The aim of this study was to determine the efficacy and accuracy of sentinel node biopsy for screen detected breast cancers compared with symptomatic cancers.

Patients and Methods: Between August 1995 and March 2000, 236 women underwent sentinel node biopsy in conjunction with a level II axillary clearance for clinically lymph node negative primary operable breast cancer. Of these, 113 were screen detected lesions, of which 96 were impalpable. Patients underwent lymphatic mapping using lymphoscintigraphy, blue dye and intraoperative gamma probe. The symptomatic and screen de-