

O-48. DOES RADICAL SURGERY TO THE AXILLA GIVE A SURVIVAL ADVANTAGE IN MORE SEVERE BREAST CANCER?

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Recent Danish studies have shown a survival advantage from radiotherapy in node positive disease.

734 patients with invasive breast cancer, presenting between January 1986 and December 1997, were treated by axillary clearance $n = 350$ or sampling $n = 384$. Sampled patients had less severe disease and were more often treated by wide local excision and radiotherapy to the breast and low axilla, than mastectomy. In order to compare the outcome of the clearance versus sampling, patients were separated into good, intermediate and poor prognostic groups by the Nottingham Prognostic Index.

Local recurrence occurred in patients with axillary clearance in 11% v 6% with axillary sampling, regional recurrence in 2% v 3% and distant metastases in 28% v 13% respectively. Kaplan-Meier curves were plotted for the three NPI prognostic groups between the radical and conservative groups and there was no difference in absolute survival. (log rank test: $p = 0.3$, $p = 0.8$ and $p = 0.6$ respectively).

We conclude that a conservative surgical approach to the axilla did not increase the incidence of regional recurrence and the expected survival benefit from the more radical approach was not apparent.

O-49. SENTINEL NODE BIOPSY IN SCREEN DETECTED IMPALPABLE BREAST CANCER USING PERI-AREOLAR RADIONUCLIDE INJECTION

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It is clear regarding palpable tumors that radionuclide can be injected peritumorally. But for the impalpable ones, there is a practical difficulty. To circumvent this, keeping in mind Sappey's description of lymphatic drainage of breast, we injected the radionuclide at four sites subdermally around the areola.

Between August 1999 and March 2001, 82 patients had sentinel node biopsy done for breast cancer in our hospital. 49 out of these were for screen detected impalpable tumors. These patients underwent peri-areolar injection. 10–20 Mbq of ^{99m}Tc labelled colloidal albumin was injected 3–4 hours prior to operation. Sentinel node(s) was removed under guidance of a Gamma ray probe. Further axillary node sampling was done in all patients.

Sentinel node(s) was identified and biopsied in 45 of 49 patients. In total, 285 nodes were removed with an average of 6.3 nodes per patient. 14 of these patients had metastases in the axillary nodes. In 8 of these patients the only node involved was the sentinel node. Only in one patient sentinel node was negative and other axillary nodes were positive for metastases.

Our localisation rate of 89% and false negative rate of 2.8% is comparable to results of most studies where peritumoral injection has been used. So in our experience, peri-areolar injection

for localisation of sentinel node is as reliable as a peritumoral injection.

O-50. SENTINEL NODE – A NEW INJECTION TECHNIQUE

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One of the international quality criteria for SN (Sentinel Node) diagnosis is >90% identification rate. Many centres perform blue dye and isotope combined in order to achieve high enough rates. We have concentrated upon use of isotope alone and inject 20 MBq $^{99\text{Tc}}$ peritumorally and 20 MBq as four periareolar injections subdermally. This technique combines the need for demonstrating alternative and parallel routes and the need for an effective drainage to the SN. All patients without clinically suspected lymph nodes were included. Lymphoscintigraphy is taken after 3 hours, and the operation was performed 24 hours later using Navigator probe for detection. One or two SNs were investigated by frozen section. During the following days further histology was performed in six sections using H&E staining and cytokeratine immunohistochemistry. When SN was positive axillary dissection was performed. During the last 18 months 154 pts are included, 120 have received breast conserving surgery and 34 mastectomy. 148 have been found by this isotope technique alone (97%), 137 were detected by lymphoscintigraphy (89%). Among the 6 SNs not detected, two were clinically fully infiltrated and should not have been included, and in two pts the tumor was removed earlier in the upper lateral quadrant interrupting the lymph drainage. The axilla was positive in 59/154 (38%) in this mixed screening and clinical population, and SN showed this in 56/59, three were palpable and completely infiltrated. SN was the only positive node in 36/59 (61%).

The novel injection technique here presented gives very high identification rate, in fact 99% of those having any chance of identification. The main reason for combining with blue dye seems to disappear. The method of SN identification can be simplified, which is important when many surgeons are going to learn the procedure.

O-51. THE ROLE OF DYNAMIC IMAGING IN SENTINEL BIOPSY IN BREAST CANCER

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The aim of this study is to evaluate and to define the role of dynamic imaging in sentinel node (SN) biopsy for breast cancer.

73 patients with T1/T2, N0 lesions were investigated. Each patient received a subdermal injection of 15 MBq $^{99\text{mTc}}$ nanocolloid. Anterior oblique (AO) dynamic imaging commenced immediately for 45 minutes (min.). Imaging data for each patient was reformatted into various image files: 90 × 10 seconds frames, 15 × 1 min. frames, 45 × 1 min. frames, 3 × 5 min. frames, 9 × 5 min. frames. Patterns of uptake were analysed using the