Three of the 19 (16%) patients with 6, 9 and 12 mm "real" PTC had single SN micrometastases and no metastases in the AC specimen.

Conclusions: PTC appears to have a relatively high rate of axillary nodal metastases. Lymph node metastases cannot be excluded on the ground of the small size of the primary tumour. SNB seems to be an ideal staging method in PTC.

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Day-surgical management of Tis-T1 breast cancer using Intraoperatory Radiolocalization (R.L.I.) with Sentinel Node Biopsy

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Introduction: The SLNB with R.L.I. can often be performed in an outpatients setting with local anesthesia with paravertebral block C7–T7.

Materials and Methods: This technique was employed in 163 patients (pts), the average age was 54.5 years (range:34–75 ys). All patients were scheduled to undergo surgery on an ambulatory basis. The tecnique involves a intra and peritumor injection of an average of 99-Tc. The surgical procedure of the tumor and axillary LSB included margin of more than 1 cm of normal tissue. Out of 163 cases of breast lesions, 93 invasive carcinomas staged as pT1 were identified; in the remaining 59 cases resulted to be DCIS, 11 of them with microinvasion. A questionnaire was given to them to evaluate information received, state of health at discharge.

Results: The operative time averaged 65 minutes for R.L.I. with SLNB. No intraoperative complications. Pathologic analysis revealed in all excisions specimens. The primary breast lesion was located and excised in all cases (identification rate 100%). 150 of 163 pts rated the overall surgical, anesthetic and recovery experience as "very satisfactory". At discharge main symptoms were tiredness, pain, anxiety, nausea and vomiting. Only 2.45% patients called the first night. We had two readmissions, one patient for haematoma and one for pneumothorax.

Conclusions: Our results indicated that SLNB and R.L.I. associated with troncular or paravertebral block are a significant step forward in the search for less aggressive treatments for early breast cancer.

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Palpation of the axilla and additional lymph node sampling as a means of decreasing false negative rates in sentinel lymph node biopsy

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Introduction: Sentinel lymph node (SLN) biopsy is associated with a 5% false negative rate. It is reasonable to suppose that palpation of the axilla and biopsy of additional nodes that are not SLNs might reduce the false negative rate. We studied the effect of this approach on the false negative rate and the complication rate in SLN biopsy.

Methods: Pathology reports for 53 breast cancer operations in which the axilla was palpated intra-operatively (Palpation group), and in which lymph nodes were biopsied in addition to the SLN, were retrospectively reviewed. These were compared with the pathology reports for 48 operations in which a SLN biopsy only (Control group) was performed. The number of lymph nodes sampled in the 2 groups was compared. In addition 25 patients from each group were interviewed and complications were recorded.

Results: The mean number of radioactive SLNs found in the Palpation group was 2.2 (range 1–6). In the Control group there was a mean of 2.6 (range 1–6) radioactive SLNs per patient. In the Palpation group, the mean number of non-radioactive lymph nodes biopsied per patient (in addition to the SLNs) was 1.9 (range 1–6). One patient in the Palpation group had metastases in 2 non-sentinel but clinically suspicious lymph nodes, in the presence of a normal SLN. No metastases were found in non-SLNs that were biopsied blindly (i.e. that were not clinically suspicious) in patients with normal SLNs. There was no significant difference in morbidity between the 2 groups.

Conclusions: Limited sampling of lymph nodes other than the SLN and palpation of the axillary contents do not cause additional morbidity. Palpation that reveals clinically suspicious nodes might result in decreased false negative rates for SLN biopsy, but not for random sampling in the absence of clinically suspicious lymph nodes.

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Sentinel lymph node biopsy in prophylactic mastectomy for risk reduction in breast cancer patients

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Background: Prophylactic mastectomy is currently undertaken for a small proportion of breast cancer patients and women at high risk for developing breast cancer. The probability of finding a tumor in a "healthy" breast that has been prophylactically resected is theoretically small. If a cancer is found, however, the opportunity for performing a sentinel lymph node biopsy (SLNB) would have been lost and the patient would then be subjected to an axillary lymph node dissection (ALND) according to current standards of care. We carried out a prospective study to determine the outcome of SLNB in the healthy breast in women with breast cancer undergoing prophylactic mastectomy for risk reduction.

Methods: All women with known breast cancer who elected to have a prophylactic contralateral mastectomy were offered SLNB for the healthy breast. Tc sulfur colloid (2 mCu) radioactive tracer, with or without patent blue dye (2 to 4 ml), were injected under the areola pre-operatively and after induction of anaesthesia respectively. All the patients had had mammography and all but 1 also had ultrasound of the healthy breast. A prospective database separate from the hospital files was kept for these patients. No patients were excluded.

Results: Eight consecutive breast cancer patients undergoing prophylactic contralateral mastectomy were offered SLNB for the healthy breast from December 2002 to September 2003. One patient refused the procedure, leaving 7 patients in the study. Two of the 7 women had malignant findings in the presumed healthy breast. One patient had an occult primary cancer in the healthy breast with a negative sentinel lymph node, and the other had a metastasis in the sentinel node of the healthy breast with no primary tumor found.

Conclusions: In women with breast cancer undergoing prophylactic contralateral mastectomy, findings in the SLNB of the healthy breast may have significant implications for treatment. The cost of SLNB to the patient is small and we feel the addition of SLNB to prophylactic mastectomy for risk reduction should be evaluated further in clinical trials. There may also be a role for this procedure in prophylactic mastectomy for women at high risk who have not had breast cancer.

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Is it possible to combine ROLL and sentinel node biopsy at the same operation by a single injection of technetium 99m?

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It now is widely accepted that radioguided sentinel node (SN) biopsy is valid to predict axillary lymph node status and that radioguided occult lesion localisation (ROLL) shoud be considered as option for guidance of biopsy of non-palpable breast lesions. The possibility of combining both techiques at the same time is quite attractive and we present our experience with 82 cases of ROLL and simultaneous SN indentification. The casuistic comprised 71 women with abnomal mammography (BIRADS 4–5) and 11 cases of clips placed after mammotomy. On the day before surgery 0.2 ml of dextran labelled with 15 MBq of technetium 99m was injected under stereotaxic orientation and afterwards planar scintigraphies were performed. All patients underwent surgical biopsy, specimen radiography, frozen section and SN biopsy when indicated. SN was mapped in 80 of the 82 cases and the rate of identification was very high (97.5%). In 37 malignant cases diagnosed by frozen section (27 invasive carcinoma and 10 ductal carcinoma in situ) SN was immediately biopsied using gamma detecting probe and full axillary dissection was carried out when it was involved. It was concluded that SN can be mapped simultaneously with ROLL when it is used a single injection of a solution containing dextran and technetium 99m allowing lesions frozen section and SN analysis at the same surgical time, showing many advantages over the conventional two-step procedure.