

patients were used as their own controls for changes in time. Statistical comparisons were made by using McNemara's exact test for paired data to detect significant changes between patient responses for before mastectomy, EQ and at LQ, the chi-squared test to test for significant changes in muscular function and cosmesis and the Wilcoxon signed rank test for cosmetic ratings.

33% of patients reported restrictions in ipsilateral arm movements in EQ. Statistically there was no improvement with time. Symmetry was maintained in 33% at 15 years but most patients preferred to forego further revision surgery. Most patients considered the back scar satisfactory, 61% reported it as hidden by the bra strap. Over 50% of patients reported abnormal sensation in the flap and area surrounding it. Pain and discomfort significantly reduced with time. This method of reconstruction was highly satisfactory from the patients' viewpoint with 91% feeling it was worth performing.

In spite of significant restriction of arm movements and asymmetry persisting even after 15 years, most patients were satisfied with their operation.

O-66. A SINGLE INSTITUTIONAL EXPERIENCE WITH SENTINEL NODE BIOPSY IN 400 BREAST CANCER PATIENTS

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Introduction: The technique of lymphatic mapping in breast cancer can spare patients an axillary lymph node dissection (ALND) and stage these patients more accurately. The aim of our study was to evaluate the results of sentinel node biopsy at our institution.

Patients and Methods: From January 1997 to November 2000, 400 consecutive patients with cT1-2N0 breast cancer were studied. The first 82 patients underwent confirmatory ALND. Five patients had a bilateral tumor and 49 patients a non-palpable tumor. The mean histological tumor diameter was 1.9 cm (0.3–8.0) with a pT1 stage in 65.8%, pT2 in 33.9% and pT3 in 0.3%. Preoperative lymphoscintigraphy was performed after injection of Tc-99m-nanocolloid into the tumor in a volume of 0.2 ml and a mean radioactive dose of 2.6 mCi (1.1–4.3). The sentinel node was surgically identified with the aid of patent blue dye (1.0 ml, intratumoral injection) and a gamma-ray detection probe. Sentinel nodes were step-sectioned and stained with H&E and immunohistochemistry (CAM5.2). The median follow-up of patients without ALND after a tumor-negative sentinel node was 11 months (range 1–23)

Results: In 369 of 405 procedures (91%), a sentinel node was visualized during lymphoscintigraphy. The sentinel lymph node was intraoperatively identified in 386 procedures (95%). Pathological examination showed sentinel node metastases in 155 cases. The sentinel node was false negative in four patients corresponding to a sensitivity of 97.5%. Two false negative results were based on routine ALND, one was established through intraoperative palpation and excision of a firm and tumor pos-

itive non-sentinel node and one patient developed an axillary recurrence 22 months postoperatively. The sentinel node was not found in 19 patients. Fifteen of these patients underwent ALND (tumor-positive in 7) and 4 received radiotherapy of the axilla. A sentinel node outside level I or II of the axilla was visualized in 106 patients (27%). Internal mammary chain nodes could be harvested in 84% and other non-axillary sentinel nodes in 89% of the patients. The pathological status of non-axillary sentinel nodes changed further treatment in 24% of patients with non-axillary drainage.

Conclusion: Sentinel node biopsy seems to be a highly accurate technique although the follow-up of patients without confirmatory axillary lymph node dissection is short. Excision of sentinel nodes outside level I and II of the axilla can accomplish more precise staging.

O-67. DOES AXILLARY NODE SAMPLING IN ADDITION TO SENTINEL NODE BIOPSY PROVIDE USEFUL STAGING INFORMATION IN PATIENTS WITH BREAST CANCER?

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The aims of this study were to determine if: 1) axillary sampling (AS) in addition to sentinel node biopsy (SNB) reduces the false negative rate of SNB alone. 2) AS predicts those patients with remaining axillary node metastases following a positive SNB.

From a series of 66 patients undergoing SNB using radio-isotope and Patent Blue V dye, in the last consecutive 38 patients we performed an AS after SNB followed by a completion level II axillary dissection (AD).

Sentinel nodes were identified in 36/38 cases (94.7%); 22 were negative and 14 positive. When validated against AD however there were 3 false negatives (3/17 = 17.6%). Of these, 2 had clinically involved nodes at surgery, but the other false negative was also "missed" by AS. The false negative rate therefore for SNB + AS was 1/17 (5.9%). Of the 14 positive SNB, 7 had further nodal disease in the axilla - in 4 cases this was detected by AS but in the remaining 3 the AS was clear.

SNB is unreliable in the presence of obviously involved nodes and additional AS reduces the false negative rate of SNB alone in this situation whilst AS of clinically uninvolved nodes however does not improve staging. A negative AS following a positive SNB does not exclude the need for further axillary treatment.

O-68. BLUE AND HOT HITS THE SPOT- OR DOES IT NOT? COMPARABILITY OF A FOUR NODE SAMPLE TO SENTINEL NODE BIOPSY

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Of 1180 published studies nearly all suggest the use of SLNB in breast cancer. None have sufficient statistical power; the majority is based on series of less than 40 node positive patients. A study