Results: Micm in SLN were found in 28 pts, mean age 55.7 (40−81), 50% post-menopausal. Histology revealed 85% ductal invasive carcinoma, 7% mucinous invasive carcinoma and 4% lobular invasive carcinoma. Tumors measured 0.1−2 cm in 82%, 2−5 cm in 14% and >5 cm in 4%. Multifocal lesions were found in 21%. Seventy-five percent presented associated ductal carcinoma in-situ, 14% associated with necrosis. Concerning citonuclear grade, 14% were G1, 71% G2 and 14% G3 tumors. Estrogen receptors (ER) were positive in 96%, positive progesterone receptors (PR) in 62% and Cerb2 was positive in 23%. Analysis of SLN revealed one LN with micm in 84% (92% referring to 1 focus, 8% to 2 focus) and in two LN in 4% (50% referring to 1 focus, 50% to 2 focus). Considering complete axillary dissection, just 1/28 presented other metastatic lymph nodes. Comparing micm BC pts (N = 28) vs non-metastatic pts (N = 284), pT1, palpable lesions were found in 75% vs 35% ($p < 0.005$). Multifocal lesions were detected in 21% vs 6% ($p = 0.046$). Positive ER in 96% vs 80% ($p = 0.022$). Superior-external quadrant was the prevalent location of micm tumors (71%) ($p < 0.005$). Other parameters as hormonal stage, histological type, cito-nuclear grade, PR and Cerb2, did not reveal significant differences between both groups.

Conclusions: Although tumors with micrometastases in SLN were smaller, they were more frequently palpable lesions ($p < 0.005$). Complete axillary dissection revealed lymph node invasion just in one patient. Other surprising differences found in micrometastatic lymph node tumors were related to multifocal lesions ($p = 0.046$), ER positivity ($p = 0.022$) and topography of tumors, being superior-external quadrant significantly more frequent.

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The impact of the sentinel node concept on the aesthetic outcome of breast cancer conservative surgery – an objective analysis in a randomized series, using the new BCCT.core® 1.0 software

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Introduction and Aims: Sparing Breast Cancer (BC) patients to Axillary Dissection (AD) could reduce axillary and breast deformities and maintain the regional lymphatic physiology; these factors are thought to improve global cosmetic outcome. Few reports have addressed the issue of the positive influence of the Sentinel Node (SN) concept on the aesthetic outcome after BC Conservative Surgery. The aim of this work is to assess the influence of the SN concept on the aesthetic outcome on a randomized series of BC patients, with the help of a recently developed computer software.

Methods: Sixty-two patients included in a larger randomized trial, comparing SN to AD, submitted to BC conservative surgery and radiotherapy (from May 2001 to June 2003) were photographed (minimum follow-up time: 3 years). Patients were divided into 3 groups: group 1, SN negative and AD; group 2, SN negative and no AD; group 3, SN positive and AD. Photos were analyzed by the BCCT.core® 1.0 software and statistical analyses were done by SPSS 13.0. Aesthetic results were classified as poor (score 4), fair (score 3), good (score 2) or excellent (score 1); poor and fair were grouped and re-classified to fair (score 2) and good and excellent were grouped and re-classified as good (score 1).

Results: Median patient's age was 54 years (range: 32−71). Nineteen patients were allocated to group 1, 27 patients to group 2 and 16 to group 3.

Mean score's result was 2.37 for group 1, 2.41 for group 2 and 2.63 for group 3, considering 4 categories and 1.53 for group 1, 1.44 for group 2 and 1.50 for group 3, considering 2 categories ($p = 0.86$ and $p = 0.59$, respectively). Chi-square test also didn't show differences between the 3 groups of patients ($p = 0.23$ when 4 categories were considered and 0.85 when 2 categories were considered).

Conclusions: The objective analysis of BC conservative surgery aesthetic outcome, utilizing the BCCT.core software, didn't show any advantage for the SN only group of patients. Good cosmetic results may not be dependent on the conservation of axillary nodes anatomy and physiology.

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Intra-operative palpation of the axilla and removal of palpable lymph node at the level of sentinel node during sentinel node biopsy procedure in breast cancer staging . . . Is it important?

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Introduction: Although sentinel lymph node biopsy (SLNB) is highly accurate in predicting axillary nodal status in patients with breast cancer, it has been shown that the procedure is associated with a few false negative results. A false-negative rate of 5% is considered acceptable. In the case of a false-negative SLNB, adjuvant local and systemic treatments might be suboptimal. There are some factors behind this false negative rate like obesity, tumor location other than the upper outer quadrant, number of SLNs retrived, Grade of the cancer and other factors.

Aim of this study: To study the value of removing any palpable lymph node (whether normal or suspicious) at the level of the sentinel node in terms of reducing the false negative rate of SLNB procedure.

Method: From June 2005 till June 2007, 101 patients with breast cancer planned to have SLNB at Leeds General Infirmary were included in this study. All these patients have negative axilla both on clinical ground and ultrasound examination of the axilla on diagnosis. All patients with SLNB for multifocal cancer, DCIS and those received neo-adjuvant chemotherapy were excluded from this study. Localisation of the SLN(s) was done by both TC-99 and blue dye with lymphscintiscan for every patient to show the lymphatic mapping. SLNB was done by only one surgeon. During the operation and after completion of SLNB, palpation of the axilla was done and any palpable lymph node at the level of SLN was retrieved separately for histopathology. Axillary clearance was done to all cases with positive SLN(s) or positive palpable lymph node.

Results: Palpable lymph node were identified in 21 patients (21.2%). In case of positive sentinel node biopsy, 2 cases the palpable lymph node were positive also while three cases were negative. in the group of negative sentinel node biopsy, 11cases the palpable lymph node was also negative while in 5 cases the palpable node was the only positive regarding metastasis. The false negative rate was 5.05%(. 3 out of these 5 cases (negative Sentinel node biopsy with positive palpable lymph node, the palpable lymph node was normal macroscopically but they are the only one with siginficant metastasis.Further analysis was done to those cases regarding the result of axillary clearance and th size and the grade of the breast cancer.

Conclusion: Removal of a palpable lymph node even it is normal looking at the level of sentinel node with reduce the false negative rate of this proceedure and increase the specificity.

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The prevalence of and risk factors for four or more metastatic axillary lymph nodes in breast cancer patients undergoing sentinel node biopsy

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Background: Axillary clearance (AC) is the standard treatment for patients with tumour positive sentinel nodes (SN) revealing the number of metastatic axillary nodes. This information is helpful when targeting postmastectomy radiation therapy (RT) and planning the radiation fields. However, some patients with tumour positive SN do not undergo AC, but receive axillary RT, instead. In addition, many plastic surgeons and radiation oncologists prefer delayed breast reconstruction in patients requiring postmastectomy RT. For these reasons, our aim was to investigate the prevalence of and risk factors for having four or more positive axillary lymph nodes among patients undergoing SN biopsy.

Patients and methods: Altogether 1062 breast cancer patients with clinical stage T1−T2 tumours underwent SN biopsy and AC, when SN was tumour positive between February 2005 and July 2007. These patients were identified in a prospectively collected database.

Results: Four or more positive axillary nodes were detected in 68 patients representing 6% of the entire study population and 16% of the 436 node positive cases. Features regarded as predictive for a very low risk included 1) T1a or T1b tumours, 2) grade I tumours, 3) tumours with a favourable subtype, that is mucinous, tubular or medullary breast cancer, 4) no nodal macrometastases and 5) SN ratio lower than 0.5.

Conclusions: Only few patients with T1a-b tumours or grade 1 tumours or tumours, as well as those with minimal involvement of the sentinel nodes have four or more positive axillary lymph nodes. However, these risk factors can be definitely assessed only after surgery, decreasing their value in the clinical decision making.