Results: Stereotaxic guided core biopsy leads to a sensitivity of 93% for the histological diagnosis of solid lesions, while the sensitivity for microcalcifications was 73%. Stereotaxic guided excisional biopsy was able to improve the sensitivity for the diagnosis of microcalcifications and improves the precision of excisional techniques in breast surgery.

Conclusion: For the diagnosis of benign microcalcifications and intraductal breast cancer stereotaxic guided excisional biopsy is an adequate method which leads to a new era of precise and minimal invasive breast surgery.

213 POSTER

A prospective study of sentinel lymph node in patients with breast cancer using a combined technique: Dye and radio-labelled colloid

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Background: Sentinel lymph node (SLN) identification in patients with breast cancer has been established by using either blue dye or radio-labelled colloid. The aim of this study is to establish whether the rate of identification of SLN is increased by using the two techniques together.

Methods: A prospective study of 35 consecutive patients with operable breast cancer. Radio-labelled colloid (Tc99) and patent blue injected around the tumour or its biopsy cavity. 18 patients had axillary clearance, 17 had axillary sampling, 5 of whom subsequently underwent clearance. SLN identified by its blue colour and/or hand-held gamma probe.

Results: The SLN was identified by both techniques in 34 patients. The identification rate was: Dye, 94.3% (33/35), Tc99, 91.4% (32/35) and Dye + Tc99, 97.1% (34/35). Both techniques failed to identify SLN in one patient (2.8%). One SLN identified by both techniques contained no tumour (2.8%) but a very large adjacent node contained metastases.

Conclusions: (1) An increase in rate of identification of SLN using combined techniques. (2) Lymphatics leading to large lymph nodes (3 cm or more) replaced by metastases may be blocked by tumour cells, and this may force the dye or isotope to divert their pathway to a nearby falsely –ve SLN.

214 POSTER

The frequency of metastases in the interpectoral lymphatic pathway in patients with breast cancer

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Interpectoral lymphatic pathway (ILP) presents the additional way of cellular spread in breast cancer. By this way metastases from breast tissue can be carried to subclavicular lymph nodes, that means to the apex of axilla, bypassing the main axillary nodal group. The aim of the study was to find out the frequency of interpectoral involvement and to estimate factors which can increase the risk of the metastatic changes. The analysis was carried out in 145 patients operated between 1993 and 1994 in Clinical Oncology Unit in Lodz. In 3 women radical mastectomy was performed, in 125 patients modified radical mastectomy was performed and in 17 patients quadrantectomy with axillary dissection was carried out. In all patients the removal of interpectoral lymphatic tissue have been dissected, and all the specimen have been subsequently examined. In two patients in ILP several small lymph nodes were found, in 116 cases ILP was formed by lymphatic vessels, in 27 cases normal fatty tissue was reported. Metastatic changes were found in 27 (23.6%) cases and were presented as massive or embolic metastases in lymphatic vessels. In one of these patients metastases were found in the apex of axilla without any changes in lower parts of the axillary lymph nodes. In one patient metastases in ILP were the only symptom of regional disease. The analysis of our material showed that ILP involvement correlates with size of tumour and its location in the breast: when the diameter of the tumour was more than 2 cm and when the tumour was located in the upper quadrants or in the central part of the breast metastases in ILP were statistically more common.

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multiple lymphatic drainage pathways in breast cancer and its implication for sentinel lymph node (SLN) biopsy and internal mammary (IM) lymph node biopsy or radiation

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Purpose: SLN biopsy is used in the staging of breast cancer. This study identifies multiple lymphatic drainage pathways in some patients undergoing SLN biopsy.

Methods: SLN biopsy was performed 2 to 4 hours after lymphoscintigraphy using 99Tc sulfur colloid and 5–10 minutes after injection of isosulfan blue dye. SLNs were identified visually and using a handheld gamma-detection probe. All patients but one underwent standard axillary lymph node dissection. SLNs were analyzed by H&E and/or cytokeratin immunostains. Lymphoscintigraphy and/or intraoperative identification of SLNs that were anatomically separate and unconnected by blue afferent lymphatic tracts identified multiple lymphatic drainage pathways.

Results: Twenty-two women were studied. Tumors ranged from 0.2–2.8 cm. Ten patients had intact tumors; 12 patients had undergone prior breast biopsy. Multiple lymphatic drainage pathways were identified in 7 patients: 4 with intact tumors greater than 1.6 cm and 3 with biopsy cavities greater than 2.7 cm or centrally located. 9% of patients drained to IM and axillary lymph nodes.

Conclusion: Multiple lymphatic drainage pathways to axillary and/or IM lymph nodes may occur as breast cancers enlarge or may result from injections around large or midline biopsy cavities. Implications for SLN biopsy and IM SLN biopsy and/or radiation will be discussed.

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Male breast cancer: A retrospective analysis of patients treated in Trieste, Italy

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The present study evaluates retrospectively 35 cases of non-metastatic male breast cancer, treated in Trieste from 1980 to 1996. The median age was 66.5 years (range 32–82). All patients underwent surgery; a radical mastectomy was performed in 33 cases, a wide excision in 2 cases. Pathological staging showed: pT1: 4, pT2: 6, pT3: 3 and pT4: 22 tumours; histological subtypes were: ductal infiltrating carcinoma: 31, lobular infiltrating carcinoma: 2, ductal carcinoma in situ: 2 cases. Positive lymph nodes were found in 20/33 (60.6%) patients, with infiltrating carcinoma, who underwent axillary dissection.

Our series covers a long period, so that treatment modalities, especially adjuvant therapy, change over time. After surgery, 11/35 (31.4%) patients received chest wall and supraclavicular irradiation: adjuvant chemotherapy and hormon therapy were administered to 13/35 (37.1%) and 8/35 (22.8%) patients respectively.

With a median follow up of 67 months (range 10–216 months), 15 patients died of breast carcinoma; 8 from other causes; 7 are alive without relapse and 1 is alive with disease; 4 patients were lost to follow up.

Our retrospective analysis confirms previous studies, showing that both age and cancer stage at diagnosis are more advanced in men with respect to women. However, the prognosis of male patients with breast cancer does not differ significantly from female patients when disease-specific survival rate, tumour size and axillary status are compared.

217 POSTER

Breast-conserving therapy in case of carcinoma tumours larger than 2 cm with the help of individually adapted oncoplastic operations

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Purpose: Inspite of intensive efforts for early cancer detection the rate of tumours larger than 2 cm reached in our clinic for the last ten years continously 60% or more. Therefore the breast conserving therapy (= BCT) is limited by the tumour-to-breast size relation. Can we improve this fact by using oncoplastic operation techniques?

Methods: Since 1989 oncoplastic operation techniques with tumour- and constitution-specific incisional patterns were evolved. In the present