but surgical biopsy revealed infiltrating ductal carcinoma with multiple foci of in situ carcinoma.

Conclusion: At present calcifications, particularly calcification clustering, that increase or appear, must make suspicious the radiologist. There are not still sufficient elements of analysis about calcifications that disappear. It is not possible draw definitive closures on single clinical case observed but it might represent an element of deserving reflection.

360 POSTER

The use of technetium-99m methoxyisobutylisonitrile (^{99m}Tc-MIBI) breast scintigraphy to evaluate palpable breast masses

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Purpose: The main purposes of this study is to assess the sensitivity and specificity of ^{99m}Tc-MIBI breast scitigraphy for tumor detection and to determine whether it could be used to differentiate malignancies from benign masses.

Methods: Thirty-eight female patients (age range: 31–79 years) with palpable breast masses which were detected by mammography and/or physical examination underwent ^{99m}Tc-MIBI breast scintigraphy in order to assess the value of ^{99m}Tc-MIBI scans in the detection of breast carcinoma and the differentiation of malignant from benign lesions.

Results: Twenty-seven of the thirty-two cases of breast carcinoma were detected by ^{99m}Tc-MIBI breast scintigraphy. In contrast, none of the six benign lesions could be detected by this method. The diagnostic sensitivity, specificity and accuracy were 84%, 100%, 87%, respectively, in the differentiation of malignant and benign breast masses.

Conclusion: We consider ^{99m}Tc-MIBI breast scintigraphy is useful in distinguishing malignancies from benign breast masses.

361 POSTER

The axilla – What can mammography offer?

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Purpose: This presentation will demonstrate the normal variations and pathological processes that can be seen in the axilla using standard routine mammography. It will also outline guidelines for further intervention or tissue sampling should they arise. This paper will discuss the potential role of other techniques used in imaging the axilla and compare them to standard mammography.

Materials & Methods: Over 30 consecutive cases were selected from 2 busy breast imaging practices where lesions in the axilla were reported on routine mammography examinations. In each case further investigations either by alternative imaging, clinical examination or tissue sampling was instigated on the basis of the mammogram.

Results: Masses, asymmetric densities and calcifications were the three main categories evaluated. The masses were subdivided into lymph node and non lymph node masses. In most cases tissue sampling proved unnecessary. Clinical examination of the axilla and a proper clinical history established the diagnosis in 75% of cases.

Conclusion: In most cases, the mammographic appearances of lesions in the axilla are typically characteristic requiring no further intervention. On occasion tissue sampling may be warranted.

362 POSTER

Correlation between sestamibi scintigraphy-mammography, mitochondria and neoangiogenesis in breast cancer

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Purpose: Evaluation of SestaMIBI scintigraphy in the assessment of breast's microcalcifications without associated nodular lesion and the correlation between scintigraphy data and immunoistochemical detection of mitochondria and neoangiogenesis in tumour samples.

Methods: we evaluated 27 patients. All patients underwent mammography, US, 99Tc-SestaMIBI scan and stereotactic fine needle aspiration. Patients with positive cytological pattern, inadequate cytological sampling or suspect mammographic finding underwent surgical biopsy.

Results:

Final Diagnosis	Mammography	Scan
Breast Cancer 8		4/8
• intraductal 5	- 5/5 dubious	1/5
• infiltrant Ca 3	3/3	3/3
Benign Lesion 19	14/19 (5 dubious)	18/19

Conclusions: 99mTc-SestaMIBI demonstrates a good predictive negative value and poor diagnostic specificity for DCIS; sestaMIBI uptake was related with mitochondria contents in the lesions.

363 POSTER

Preliminary results in the scintigraphic and radiosurgical identification of sentinel node (SN) in early stage breast cancer

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Axillary lymph nodes dissection for breast cancer remains the most important prognostic factor and guide adjuvant therapy. We tested the scintigraphic and radiosurgical mapping of SN to verify if an adequate axillary staging and regional control is possible without radical axillary procedures.

Material and Methods: The study, began in October 1997, comprised 16 patients, aged between 35 and 78 (mean 60 years), with T1 tumor localized in 14 cases at the external superior region of the breast and in 2 case at the internal superior. All the patients underwent preoperatively two kinds of lymphoscintigraphy: 1- injection of 99m-Tc-colloid (30 MBq) the evening before the day of the surgery with scintigraphic imaging after about 15 hours; 2- injection of 99m-Tc-nanocolloid (10 Mbq) in the morning of the surgery with scintigraphic imaging after 1 hour. We utilize a low energy LFOV camera with high resolution collimator for the scintigraphy (planar in two ortogonal projections); during the surgery we utilize a probe (Pol. hi. tech srl) specific for SN collimation. After induction of general anesthesia, Isosulfan blu vital dye was injected into the breast mass and surrounding breast parenchyma.

Results: The accuracy of lymphatic mapping was examined by comparing the histopathology of SN and non SN specimens. The SN accurately identifies axillary node status in all the patients. Only in 1 case (sensitivity 93.7%) it was not possible to identify the SN because the lymphatic drainage was dramatically modified by radical mastectomy 1 mounth before: the SN was found only by blu dye. In 1 patient the SN was indentified only by probe and not with scintigraphy. In the two tumors localized in the internal superior region the SN was found not in the axilla but in the internal mammary chain. Finally in 2 case the SN was located in interpectoral region and in 2 cases in claverar omolateral region.

Conclusions: This study is at the beginning and the number of the patients is too low for a conclusion but the experience indicates that lymphatic mapping by scintigraphic and radiosurgical technique can accurately identify the SN (wich is located in the axillary nodes only in 50% of our cases) and could guide to a less radical axillary procedure in the patients with tumour T1 N0, with obvious benefit for the patients and inducing a reduction in overall costs.

364 POSTER

In situ trap method for the cytological examination of breast cancer (preliminary report)

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Purpose: We report our study on the usefulness of checking the activities of telomerase for breast cancer cytology using in situ TRAP with fluorescent primer.

Material and Method: Aspiration biopsy cytology were perfomed on our breast OPD patients.(ten breast cancer, two fibroadenoma, one phyllodes tumor, one mastopathy) The specimens were immediately de-erythrocyted at 4°C and were then fixed and dried on silane-coated slide glasses. In situ TRAP method with fluorescent primer (by Ohyasiki et. al.) were applied for cytology to check the activities of telomerase. The activities of telomerase were evaluated on slide glasses with primer through fluorescence microscope after PCR reaction.