false negative. Two patients with suspect lymphnodes were histologically proven as sinushistiocytosis and one patient with suspect axillary lymphnodes was histologically proven to be tuberculosis. 12 patients are still under chemotherapy. In two patients we found additional histologically proven involvement of supraclavicular lymphnodes.

Conclusion: The examination is easy to perform. The radiation dose is not higher than in conventional CT of the thorax. Our results show that there are differences in the perfusion of benign and malignant breast lesion in the arterial phase and that with one examination and one single contrast agent application it is possible to evaluate the breast parenchyma and the regional lymphnodes.

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Advanced breast biopsy instrumentation (ABBI): Initial experience

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Purpose: Larger numbers of non palpable lesions are discovered since the introduction of screening mammography. Open biopsies were until now the option to obtain 100% correct histologic analysis. The ABBI system offers a possible alternative.

Methods: We reviewed the results of 26 patients, between march 97 and march 98, who presented an unpalpable mammographic abnormality and who were candidates for an ABBI procedure. Twenty-one women had microcalcifications and 5 carried a suspicious density. The procedure could not be performed in 1 patient suffering form chronic obstructive pulmonary disease. Twice the mammographic abnormalities were closely situated to the thoracic wall.

Results: In 23 patients out of 26, the procedure was successful and a representative specimen was removed. The patient age ranged from 45 to 78 years (mean 56). The time needed varied form 40 to 80 minutes (learning curve). No major complications were encounted but 3 patients developed a postoperative hematoma. Pathology reports were benign in 15 patients and malignant in 11 (6 in situ carcinoma's and 5 invasive tumors). In 3 patients with DCIS the margins were free and no further surgery was needed.

Conclusion: The ABBI system seems a very promising procedure to obtain under local anesthesia correct histology of non palpable mammographic abnormalities. For small carcinomas, the complete excision of the lesion with free margins may be the unique surgical treatment.

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Tumor density and malignant characteristics on mammography in the evaluation of tumorresponse in patients treated with preoperative chemotherapy

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Purpose: Histologic tumor response does not only correlate with tumor size, but also with changes in tumor morphology. In a retrospective study we compared tumor response by clinical and mammographic evaluation of size according to the POCOB guidelines with the results of our review of the mammograms, evaluating tumor density and malignant characteristics.

Methods: Mammograms before and after chemotherapy of 129 patients, participating in the POCOB trial were reviewed. The grade of tumor response was calculated, based on changes in size on both craniocaudal and oblique views in combination with a decrease in tumor density and malignant characteristics. The results were compared with the results of the clinical and mammographic results as recorded in the POCOB files.

Results: Comparison with clinical data was performed in 118 patients. Agreement was found in 47%, disagreement of one grade in 46% and of two grades in 6%. Kappa was 0.154 (SE 0.069). Comparison with mammographic data was performed in 108 patients. Agreement was found in 41%, disagreement of one grade in 50%, of two grades in 9%. Kappa was 0.080 (SE 0.043).

Conclusion: Assessment of tumor grading, based on size, density and morphology leads to considerable discrepancies.

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A new scoring system to evaluate the malignancy risk in mammographic microcalcifications

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Purpose: To assess a new malignancy-risk scoring system of mammographic microcalcifications. This malignancy risk should help the clinician to determine in which case surgical biopsy is indicated.

Method: A scoring system based on five properties of the microcalcifications was developed. The "Le Gal" classification was combined with four other criteria: the shape of the cluster, the dimension of the cluster, the number of calcifications, and the density of the area surrounding the calcifications. 70 patients were included in this retrospective study. Each individual case was scored, and this score was then related to the histological result.

Results: On 70 images scored, the mean score of the non-malignant lesions was 30, the mean score of the atypical lesions 70, and the mean score of malignant lesions 80.

Conclusion: Our modified scoring system of mammographic images has proved to be a useful tool for the clinician to help him decide which patient to select for further investigations.

326 POSTER

FNA to core biopsy – A need for change?

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Purpose: The differences between stereotactic core biopsy (SCNBx) and stereotactic fine needle aspiration (SFNA) in assessing diagnostic accuracy, changes in surgical practice and treatment course for patients with mammographically detected lesions is evaluated.

Method: Records from 61 consecutive patients with mammographically detected lesions over a 5 year period were reviewed. Up until 12 months prior to this study all lesions were sampled by SFNA alone (n = 43). With the introduction of SCNBx, 18 patients had SFNA followed immediately by SCNx of the same lesion. These results were compared.

Results: Microcalcifications were the predominant lesion biopsies (n = 48). Of the 43 patients who had FNA alone, 26 were considered Grade 1/sufficient tissue for diagnosis. Even with the diagnosis of Grade IV/V on cytology, 9 out of 13 patients had a positive margin on excisional biopsy. SFNA and SCNBx was performed on 18 patients by a single radiologist. All but one patient who had a diagnosis of malignancy made by SCNBx had a one stage surgical procedure.

Conclusion: Assessments should be performed on a separate day to final surgery and the tissue sampling procedures should be limited to radiologists who are performing it on a regular basis. SCNBx provides histological information which can allow for a one stage surgical procedure.

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High resolution computed tomography imaging is useful for the detection of the intraductal tumor spread in breast cancer

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Recently breast conserving therapy for breast cancer has been widely accepted in our country, but there is about 10% of local recurrence in the remained breast gland. In order to diminish such local recurrences the precise diagnosis of the tumor spread is very important. Consequently, the detection of the intraductal tumor spread is required. For this purpose, we have performed high resolution computed tomography (HRCT) imaging in 60 patients with primary breast cancer since 1993.

2 mm slice sections of HRCT in prone position for the breast with tumor were performed. Three dimension subtraction CT imaging was made by the comparison between the plain and the enhanced CT. Surgically obtained tissue specimens were utilized for histologic examination. Then, the relations between the findings of the HRCT and the histologically detected intraductal spread of cancer cells were studied. 10 of 60 patients were detected the remarkable intraductal cancer spread histologically. 9 (90%) of these patients were also confirmed by HRCT, whereas other 3