Breast lesions detected on computed tomography or positron emission tomography. What have we seen?

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Results:
52 patients referred with CT/PET-CT positive lesions in the breast or axilla. 2 excluded due to lack of data, one due to known disseminated breast cancer. 49 patients with 56 breast or axilla lesions were included.
12 biopsy verified malignant lesions were diagnosed in 11 patients (6 IDC, 2 DCIS, 1 locoregional recurrence of breast cancer, 1 Follicular lymphoma, 1 adenocystic carcinoma, 1 lymph node metastasis). 8 of those malignant lesions were initially identified with CT, 4 identified with PET-CT.
Normal breast tissue in 8, cicatrices from previous breast surgery in 13, reactive lymph nodes in the axilla in 5, intramammary lymph nodes in 4 and different benign breast changes were found in 14 lesions.
In the same period resulted 3139 clinical mammography’s with biopsy proven malignant breast lesions for 311 patients.

Conclusion:
There is a high rate of malignancy in CT or PET-CT identified breast lesions. Any breast lesions identified on CT or PET-CT should be referred to clinical mammography.

Purpose:
To evaluate the clinical significance of incidental breast lesions identified on computed tomography (CT) or on positron emission tomography (PET)-CT.

Background:
As a result of improved spatial and temporal resolution, breast pathology can be identified on CT (1-2).
PET-CT shows high specificity for identifying breast tumors (3).

Materials and Methods:
Retrospective audit of all clinical mammography referrals between June and September 2014 to our tertiary clinic.
Relevant patients captured by reading indications of all referrals manually on Kodak Carestream RIS version 10.0.4.2.
CT, PET-CT examinations and breast imaging details are reviewed on Philips SiteX PACS version 3.6.12.1.0.
Results of any biopsy were reviewed on clinical database OPUS arbejdsplads version 2.11.0

Breast imaging:
Mammograms Hologic Selenic Lorad.
Ultrasound Esmo My Lab 70 ZVG.
Ultrasound (UL) biopsy 14 Gauge(G) needle.
Axillary lymph nodes were sampled with 21 G fine needle cytology.

References: