Results: We find 113 nodules (113/761 = 14.8%) presenting the sign "artery and vein together" in 105 patients (average age: 44.35 years, range: 20−94). They were classified BI-RADS 3 (n = 28) and BI-RADS 4 (n = 85).

Size: between 5 and 41 m (mediate: 13.2 mm).

Histological distribution: benign 109 (96.5%), pre-malignant 3 (2.6%) and malignant 1 (0.9%).

Sensibility: 98.1%, specificity: 19.9%, VPN: 96.5%, VPP: 32.4%, diagnostic accuracy: 41.9%.

The sign was present in 18.3% of the probably benign nodules, BI-RADS 3 of the series (28/153) and all (100%) turned out to be benign in the histology.

Conclusions: The sign "artery and vein together" has low association with pre-malignant and malignant injuries, which explains the excellent VPN (96.5%) for malignancy. The presence of this sign in probable benign BI-RADS 3 nodules allows choosing follow-up ultrasound instead of biopsy.

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Value of core needle biopsy, as the first diagnostic procedure, in palpable breast mass

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Background: Breast core needle biopsy (CNB) provides enough tissue for histopathologic diagnosis and is considered a reliable method for establishing preoperative tissue diagnosis, omitting the need for open biopsy. The purpose of this study is to evaluate CNB as the first diagnostic step instead of excisional biopsy in palpable breast mass.

Methods: In this follow-up study, patients with palpable breast mass who underwent CNB were enrolled. Based on pathology report, patients with malignant lesions revealed by CNB were immediately candidated for surgery and those who had benign lesions were followed up to 3 years.

Results: 112 females with palpable breast mass were enrolled in the study. In 103 (91.9%) of cases first attempt CNB provided adequate sample tissue. While nine (8.1%) patients needed a 2nd CNB due to inadequate sample. CNB detected malignant lesion in seventy eight (70%) patients. All (100%) malignant CNB reports were reconfirmed at surgery specimen pathology. In 34 (30%) patients CNB revealed benign lesion. At the end of 3 year-follow up period, 25 (73%) of these patients underwent open biopsy leading to the detection of 1 (3%) malignant tumor. Overall, according to the gold standard defined as positive surgical biopsy or positive follow-up, sensitivity of CNB was calculated as 98.7% (95% CI, 94.1–100%) and its accuracy was 99.1% (95% CI, 97.4–100%). The specificity of the CNB procedure was 100%.

Conclusion: These findings suggest that the malignancy detection power provided by CNB may be weighed equal to that of open biopsy. Therefore, we propose CNB as the first choice in diagnostic evaluation of palpable breast mass especially for those in accessible sites and in experienced hands. However, benign lesions diagnosed by CNB must be followed up.

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Agreement between computer-assisted quantitative measurement of mammographic breast density (MBD) and clinicians' assessment

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Background: Women with increased mammographic density have been shown to have an increased risk of developing breast cancer. MBD is generally classified according to various density scales by radiologists.

Aim: The purpose of this preliminary work is to evaluate a new computer-assisted method to quantify MBD and to compare its results with the semi quantitative assessment by clinicians.

Material and Methods: Craniocaudal (CC) and mediolateral oblique (MLO) mammograms of patients were digitized and analyzed using new software developed by Agfa and based upon Computed Radiology (CR?) Technology. The software computes a quantitative measurement of the breast density for each individual image, based only on the raw image information and expressed as a percentage value per image. Thereafter, the resulting percentages of different views are combined to compute one representative breast density percentage for each patient. These were classified according to the Boyd classification (in 6 categories). In this pilot study we used data of 58 consecutive patients who came for a mammography screening (after having excluded male patients, patients with prostheses, and breast cancer patients). The mammographic density was also classified according to Boyd by 3 independent readers. Agreement (A) was measured by kappa (K) and weighted kappa (WK), where Kappa only considers exact matches between categories and weighted Kappa accounts for how far apart two readers are. Confidence intervals are given (CI).

Results: See the table.

Kappa (K) (95% CI) and Weighted Kappa (WK)	Reader 1	Reader 2	Software
Reader 1			K = 0.441 (0.270−0.612) *Moderate A* KW = 0.596 *Moderate A*
Reader 2	K = 0.568 (0.395−0.741) *Moderate A* WK = 0.714 *Good A*		K = 0.387 (0.212−0.562) *Fair A* KW = 0.557 *Moderate A*
Reader 3	K = 0.308 (0.136−0.480) *Fair A* WK = 0.553 *Moderate A*	K = 0.362 (0.186−0.538) *Fair A* WK = 0567 *Moderate A*	K = 0.236 (0.064−0.407) *Fair A* KW = 0.472 *Moderate A*

Conclusion: These first results are encouraging for the development of a systematic use of new computer-assisted method to quantify MBD. Further work will consist in evaluating its limits and on how to ameliorate it.

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The clinical breast exam during the pregnancy conducted by three different professionals

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Background: The clinical breast exam (CBE) is an essential component of breast cancer diagnosis; when used in combination with mammography, CBE contributes significantly to the sensitivity of screening, reducing the frequency of false-negative results. The National Institute of Cancer in Brazil, recommends the CBE, once a year, in all women above 30 years old, accomplished by to physician or to nurse.

Actually, the age group of pregnant women pregnant in Brazil is increasing. This fact contributes to the association between pregnancy and some diseases that affect older women, like breast cancer. Contributing with this situation, two Brazilian studies showed that the age group of women diagnosed with breast cancer is reducing.

This current study evaluates the CBE performed by three different professionals during the pregnancy, inside to University Hospital.

Material and Methods: We recruited two hundred patients in the São Francisco University Hospital, admitted at the Obstetric Ward, post-partum.

The patients were submitted to a simple questionnaire, by medical students. We did five questions: the EBC was conducted without blouse and bust bodice, the patient was lying, the axillary lymph nodes were examined, the supraclavicular lymph nodes were examined and if the professional examined the two breasts. The CBE was performed properly, if 3 answers were positives.

Results: Between the 200 patients, 50% (100 patients) were submitted to the CBE at least once. Between these patients, 45% (45 patients) considered the CBE properly.

Evaluating the professional who held the ECB, 54.45% of physicians, 60% of nurses and 55.2% of medical students, conducted inadequately exam.

Between the patients examined by the professional, 74% received orientations of the breast self exam.

Conclusion: Despite being integrant part of the women care, the EBC don't receive the importance by the professional during the prenatal. This study shows that medical students realize the same as their teachers, no matter if is incorrect. More important than realize CBE, is realize adequately.

Breast cancer associated with pregnancy is a neoplasia with bad prognosis. There is no difference when comparing pregnant patients with non-pregnant patients in the same age range. The advanced clinical staging at the moment of diagnosis being the determinant factor for survival. Because CBE, when combined with mammography, increases the sensitivity of breast cancer screening, requirements for regular training on CBE should be started for clinical practitioners on prenatal.