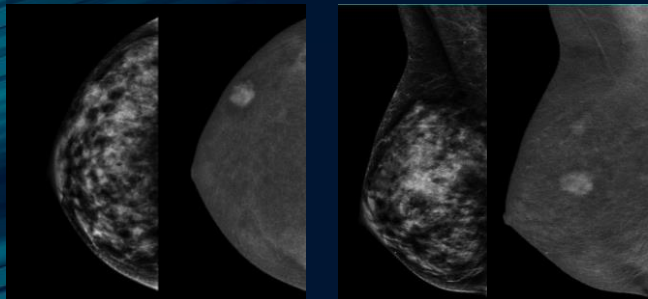


Experience with contrast-enhanced mammography: breast cancer detection in patients referred to percutaneous biopsies



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The only method that has proven to decrease breast cancer mortality is mammography. However, its sensitivity in the general population ranges from 75% to 80%, being especially lower in the case of dense breasts, more common in young women, ranging from 30% to 48% in this group (1). The most sensitive method in the detection of breast cancer is magnetic resonance imaging, (80% to 97.8%, according to current studies) (2), due to its ability of studying vascular changes in the tissues. Aiming to combine the morphological study provided by mammography with the analysis of tumor perfusion allowed by studies that use intravenous contrasts, contrast enhanced digital mammography (CEDM) or angiommammography was developed (3).



Objective: Assess whether CEDM is an effective method in the detection of breast cancer, as well as its reliability to rule out the presence of malignancy.

Methods: Patients were recruited at the time of attendance to the service for breast percutaneous biopsy of lesions detected on previous mammography and /or ultrasound examinations, previously requested by their physicians. Those who made themselves available to participate in this study did sign the Free and Informed Consent Form (FICF). Patients were submitted to bilateral mammographic study, obtaining low-energy images and recombined high-energy images. Low-energy images, equivalent to digital mammography, were described and classified according to the BI-RADS lexicon. The contrasted studies were described in order to comply with the recommendations of the current literature, observing that, until nowadays, there is no standardization by BI-RADS for contrast mammography reports. These studies were compared to histopathological findings of biopsies, the gold standard in this study.

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Results	Benign	Malign.	Total
Enhancement +	27 (13,5%)	46 (23%)	73 (36,5%)
Enhancement -	119 (59,5%)	8 (4%)*	127 (63,5%)
Total	146 (73%)	54 (27%)	200

* 7 of these were BI-RADS category 4 on CEDM.
53 of 54 malignant cases were detected on CEDM.

Conclusions: This preliminary results demonstrated that CEDM is a high sensitive(98%) method for breast cancer detection, including non invasive lesions. The study is still in progress and further data is needed to describe the benefits of CEDM on breast cancer detection.

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