

MR imaging in evaluation of Paget disease of the breast: a pictorial essay

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BACKGROUND: Paget disease (PD) accounts for less than 5% of all breast cancers and is characterized by the presence of neoplastic cells in the epidermis of the nipple-areolar complex (NAC). Diagnosis is based on clinical findings including the presence of erythema, itching, ulceration, nipple inversion, bloody discharge from the nipple, or a combination of these and the skin biopsy. The completion of clinical evaluation with imaging methods is mandatory because of the association with ductal carcinoma in situ and invasive ductal carcinoma in more than 90% of cases.

HYPOTHESIS: Findings that may be seen at mammography include skin thickening, nipple retraction, masses, asymmetry, architectural distortion, or malignant calcifications. Up to 50% of tumors associated with PD may not be characterized at mammography and ultrasound. Magnetic resonance imaging (MRI) is the most sensitive method for evaluating the NAC, for the investigation of intramammary injury associated and for the appropriate therapeutic planning. The purpose of this essay is to illustrate the importance of MRI in research of intramammary injury associated with Paget disease.

METHODS: The authors present cases with diagnosis established, being conducted research with mammography, ultrasound and MRI.

RESULTS: The evaluation with multiple imaging modalities is mandatory and although mammography and ultrasound may be helpful, MRI is the most sensitive method.