Radiological Mammographic and Sonographic Features of Idiopathic Granulomatous Mastitis

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Background: Idiopathic granulomatous mastitis (IGM) is a rare disease of the breast that can clinically and radiologically mimic cancer and result in unnecessary mastectomies.

Objective: To describe the radiological mammographic and ultrasonographic features of IGM, and to correlate the imaging appearances and histopathological diagnoses.

Design: A retrospective study.

Setting: Radiology Department, King Hussein Medical Centre, Amman, Jordan.

Method: The study was conducted between January 1st 2002 and December 31st 2007. Mammograms and breast ultrasounds of 13 symptomatic female patients with histopathologically proven diagnoses of IGM were reviewed. All the patients underwent fine-needle aspiration and excisional biopsy. The radiological features and histopathological diagnoses were compared.

Result: Mammography showed focal asymmetrical densities with no distinct margins in 7 patients; ill-defined masses with speculated margins in 3; large focal asymmetrical densities with small well defined mass in 2, and a large diffuse opacity involving the entire dense breast in 1. Breast ultrasound showed tubular hypoechoic lesions in 7 patients; irregular hypoechoic mass with tubular connections in 3; decreased parenchymal echogenicity and acoustic shadowing at the site of the palpable mass in 2, and no abnormality in 1.

Conclusion: Radiological mammographic and sonographic features could suggest the possibility of IGM, and may aid in the differentiation between IGM and breast cancer. However, a histological confirmation is still required for the proper diagnosis and determination of an appropriate treatment.

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