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BREAST IMAGES

Diabetic mastopathy: Differential diagnosis of breast carcinoma

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A 46-year-old female with a 32-year history of insulin-dependent diabetes mellitus (IDDM) presented with a two months progressively enlarging left breast mass.

Breast examen revealed a 4 cm elastic mass in left breast. US found a hypoechoic glandular area with poorly defined boundaries, compatible with adenosis (Figure 1). Biopsy showed fibrous dysplasia and mononuclear perivascular infiltrates without neoplasic signs. Patient underwent lumpectomy, and histopathology just revealed fibrosis and lobular atrophy. During follow-up new masses appeared, MRI after contrast administration informed a bad defined limits and hipervascularization pseudonodular area with an indeterminate uptake curve (Figure 2).

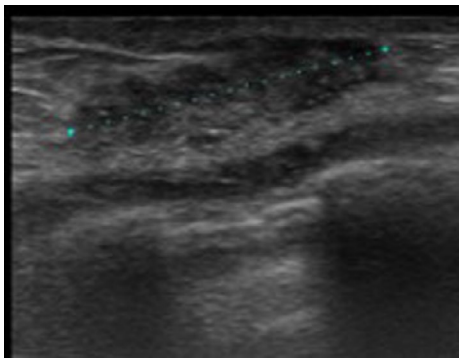

FIGURE 1 US findings [Color figure can be viewed at wileyonlinelibrary.com]

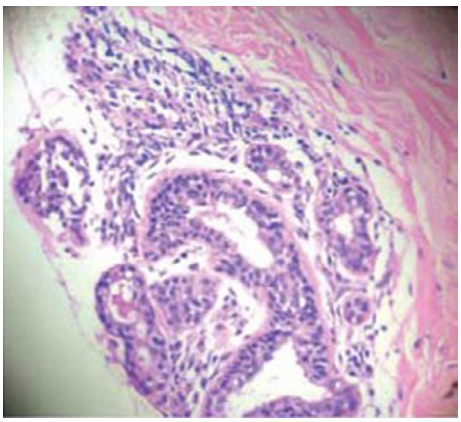

FIGURE 3 Histopathology [Color figure can be viewed at wileyonlinelibrary.com]

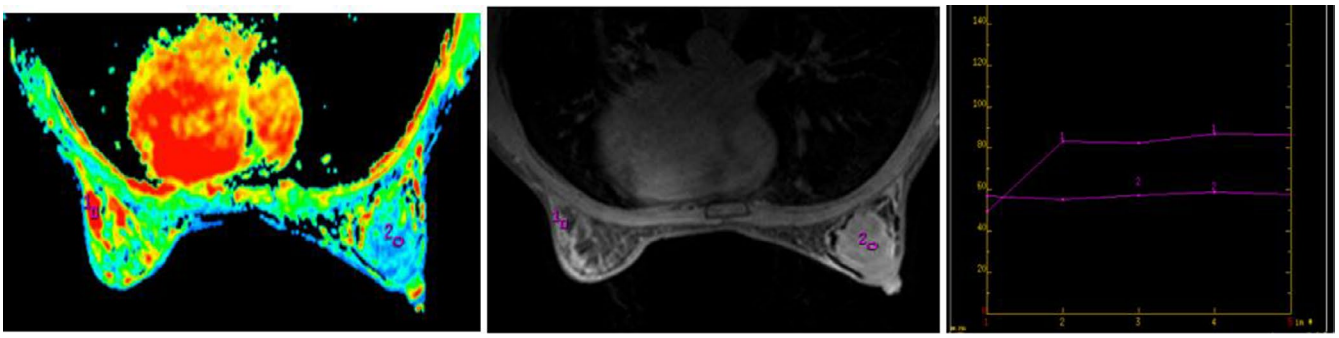

FIGURE 2 MRI findings [Color figure can be viewed at wileyonlinelibrary.com]

New biopsy without malignant findings was performed, but the patient asked for surgery, and a nipple-sparing mastectomy with inmediate reconstruction was performed. Gross pathology finally revealed microgranulomatous reaction and mature lymphoid inflammatory infiltrate in relation to diabetic mastopathy (DM) (Figure 3).

Diabetic mastopathy appears in about 13% of long-standing IDDM due to microvascularization complications. Is a benign lesion not progressing to malignancy? Etiology is unknown, but an autoimmune reaction has been associated.

While clinical, radiologic, and cytologic examination forms the fundamental basis for the evaluation of all breast lumps, these aspects have a low sensitivity in patients with DM, making the diagnostic accuracy often poor.

There is no known radiologic marker to differentiate from carcinoma (US/mammography), but MRI can collaborate in the differential diagnosis by not showing stromal pathologic enhancement. At the end, biopsy is essential for diagnosis and surgery remains the main stay of therapy with wide local excision and adequate normal breast tissues margin.

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