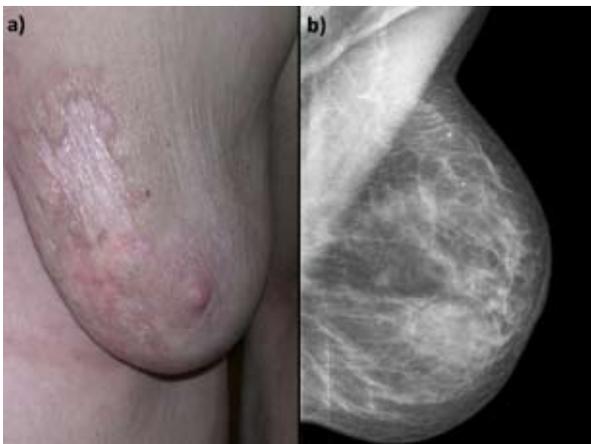


## Hardness and Painful Lesion of the Breast

Dear Editor,

Lupus panniculitis or lupus profundus is a rare inflammatory complication found in patients with systemic lupus erythematosus (SLE), or discoid lupus erythematosus (DLE) (1). When the breast is involved, the term lupus mastitis (LM) is used. This disease involving the breast is rare, and the lesions may precede, coincide with, or occur later than the onset of other lupus lesions. Tissue biopsy is required to confirm the suspected diagnoses of LM. We report a case of a patient with lupus mastitis due to the important differential diagnosis.

A 60-year-old woman presented with a painful nodular lesion in her left breast that had appeared 15 days ago (Figure 1, a). She had been previously diagnosed with discoid lupus erythematosus 3 years ago. Physical examination revealed a deep and firm erythematous subcutaneous nodule without overlying skin involvement in the lower-central portion of the left breast. Laboratory findings were positive for antinuclear antibodies (1:80) and double-stranded deoxy nucleic acid antibodies (1:10). Mammography and ultrasounds showed an area of increased density and irregular breast tissue along with an important thickening of the overlying skin (Figure 1, b).



**Figure 1.** (a) Nodular lesion in the left breast. (b) Mammography: increased density and irregular breast tissue.

On suspicion of malignancy, a needle biopsy of the breast lesion was performed and showed vacuolar alteration and lymphocytic infiltrate in the basal layer. Subcutaneous fat showed a lobular panniculitis with a prominent lymphocytic infiltrate and hyalinization of the fat lobules (hyaline fat necrosis). Direct immunofluorescence of the face biopsy revealed IgA, IgG, IgM, and C3 granular deposition. Based on these results, a diagnosis of lupus mastitis associated with DLE was established. Antimalarial therapy resulted in complete resolution of the clinical features. Three years later, the patient presented with a disfiguring atrophy with retraction in the damaged areas of the breast (Figure 2).

Lupus mastitis is a very unusual disease that most commonly affects middle-aged women. The first case of LM was described by Tuffanelli in 1971. The lesions usually present following the diagnosis of SLE/DLE; however, on rare occasions they may be observed earlier (2).

The histophysiology of this disease remains unclear, but the predominant theory suggests an autoimmune-related etiology. Corroborating evidence for this theory includes the finding of immune complexes, both at the basement membrane of the dermal-epidermal junction and in the blood vessels in the areas of panniculitis (3).



**Figure 2.** Disfiguring atrophy with tissue retraction.

Lupus mastitis may be present in the breast as single or multiple subcutaneous nodules that may be tender or painful and can progress to chronic ulcers over time or resolve, leaving atrophic scars. The overlying skin can be normal, erythematous, poikilodermic or ulcerated. When skin changes are prominent, the lesion may clinically and radiologically mimic inflammatory breast carcinoma. Mammographic and ultrasound findings include an ill-defined breast density with or without associated microcalcifications (4).

Histologically, this disease is characterized by lobular lymphocytic panniculitis and predominantly involves the fat lobule and the presence of anucleated adipocytes in a background of a glassy-appearing collagenous stroma (hyaline fat necrosis). Fibrinoid necrosis of the vessel wall has also been reported, but is usually absent (5).

Differential diagnosis of lupus mastitis includes inflammatory breast carcinoma, primary medullary carcinoma, and other immune-mediated inflammatory conditions such as diabetic mastopathy.

The first line of treatment the use of antimalarial drugs such as hydroxychloroquine. Systemic steroids and cyclophosphamide have also been used. Surgical treatment should be considered only in patients who do not respond to management with medications.

In summary, we reported a case of lupus mastitis in a patient with discoid lupus erythematosus. This dermatosis should be considered in the differential diagnosis of breast lesions in lupus patients, and a biopsy of the breast lesion is essential to reject suspected malignancy. If the disease is left untreated, unsightly atrophy will appear; it is thus important to diagnose early on. The course of the disease tends to be chronic with remission and flares, so patients should be followed-up regularly due to the risk of recurrences in the same area or in a different location.

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