Lupus mastitis in male mimicking a breast lump

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Introduction

Pathologic male breast findings are quite unusual. Therefore male patients with breast lumps should be thoroughly investigated and a range of differential diagnoses should be considered. We describe our experience at the European Institute of Oncology (EIO) involving a mastitis mimicking breast cancer in a male patient affected by lupus.

Clinical case

A 43-year-old male, with a 3-month history of a left breast lump underwent clinical evaluation in our Institute. This solid and irregular mass measured 2 x 2 cm and was located at the upper lateral quadrant with no skin changes. There were no inflammatory signs. However, a lymphadenopathy was presented with a mobile ipsilateral axillary node 1.5 cm in diameter. Computerized tomography demonstrated a hyperplastic lateral cervical lymph nodes reaction and hypertrophy of the left axillary lymph nodes. The breast ultrasound revealed an echogenic subcutaneous lump, with irregular margins and 36 mm of maximum diameter which suggested bioptical investigation. The fine needle aspiration showed this lesion to be C2 (following the...
European Guideline-1997): this indicates benign findings (flogosis).

The patient was affected by an antiphospholipid syndrome and had been diagnosed with systemic lupus syndrome in 1994 according to the American College of Rheumatology (photosensitivity, nonerosive arthritis, leukopenia, positive anti-DNA antibody). At the time of consultation the patient was undergoing antithrombotic therapy with enoxaparine 50 \( \frac{mg}{dl} \) due to a recent superficial inferior left leg phlebitis episode.

He was submitted to open breast biopsy (Fig. 1) with immediate pathological evaluation favourable for mastitis. After that, the final pathological result confirmed an active chronic mastitis in accordance with Lupus Syndrome (Fig. 2).

Discussion

Antiphospholipid syndrome \(^1\) is a disorder of the immune system characterized by excessive clotting of blood and the presence of antiphospholipid antibodies in the blood.

In fact, antiphospholipid antibodies have been reported in approximately 2% of the normal population and have also been detected in over half of the patients with the immune disease systemic lupus erythematosus. \(^1\)

Lupus is a condition of chronic inflammation caused by an autoimmune disease. When only the skin is involved, the condition is called discoid lupus erythematosus (DLE). When internal organs are involved, the condition is called systemic lupus erythematosus (SLE). The disease can affect all ages but most commonly begins from age 20 to 45 years. \(^2\)

Lupus panniculitis (LP) can occur in approximately 2–3% of patients with SLE. It is a chronic, recurrent panniculitis, more frequent in women. Lesions have a predilection for the upper arms, shoulders, face, and buttocks. Clinically, they consist of deep subcutaneous nodules or plaques, with or without epidermal manifestations of SLE. The lesions usually regress leaving persistent areas of lipoatrophy. \(^3,4\)

According to the literature LP can occur by themselves or coexist with SLE (10%), DLE (33%), or other autoimmune disorders. Histologic sections show a lymphocytic lobular panniculitis with areas of hyaline necrosis, perivascular inflammation and vasculitis. In less than half of these cases the epidermis will show changes of discoid lupus such as vacuolar changes of the basal layer and superficial and deep perivascular chronic inflammation. \(^2,4\)

The uncommon breast localization of LP is defined as lupus mastitis (LM). In 1995 Holland et al. published a review of the literature and revealed only nine cases of LM (two of these cases were observed by the same authors; five cases occurred in patients with DLE). \(^5\)

As reported, LP involving the breast is rare \(^3,5\) and the lesions may coincide with or occur later than (as in the cases previously reported), the other lesions of SLE or DLE. LP may also precede the onset of SLE or DLE. Most patients mentioned in the literature had history of subcutaneous nodules of the breast. \(^3,5\)

It is imperative to obtain an ample sample of these lesions, because cases of subcutaneous lymphoma can mimic the appearance of LP. In the breast, other differential diagnoses may be taken into consideration, such as granulomatous mastitis which is a rare inflammatory disease of the breast which can clinically mimic malignancy and may be misdiagnosed as carcinoma. Increased awareness of the disease should lead to earlier diagnosis and better management. \(^6\)

The use of ultrasound may demonstrate signs which are more specific for granulomatous mastitis such as multiple clustered tubular hypoechoic lesions associated with a large hypoechoic mass. However, due to false-positive and false-negative results the final results can only be confirmed by histology. \(^7\)

Moreover, although breast cancer is rare in male patients and occurs in 1% of all breast cancer patients, it must always be considered in a case of a breast lump in a male. Delay in diagnosis can result from ignorance of the existence of breast cancer among men. \(^8\)

This case is important because, some authors have suggested that LP can be the first expression of SLE, or that LP may involve the breast. Our review has demonstrated only few reported cases of LM occurring so long before DLE lesions. \(^3,5\)

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References