Case Report

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A Case of Primary Tuberculosis Mastitis Revealed By a Chronical Skin Fistula

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Introduction

Breast tuberculosis is a rare form of extrapulmonary tuberculosis, even in endemic countries. Its frequency is low both in tuberculosis localization (0.06 to 0.1%) as well as in breast disease (0.025 to 4.5%) [1]. It can have many clinical and radiological features of breast diseases leading to a real challenging diagnosis. Herein we report a new case of a female Moroccan woman.

Observation

A 48-year-old female patient presents in our department with a history of painful ill-defined lump of the right breast evolving for 8 months without response to antibiotic treatment. She has no personal history of HIV infection or immunodeficiency. Physical examination showed retracted skin in some areas and indurated nodules deforming the upper outer quadrant of breast with periareolar fistula surrounded by an inflammatory halo (Figure 1) and pus discharge. We don't have noticed any axillar adenopathy and left breast was normal.

Figure 1 : Multiples right breast arches with a periareolar fistula surrounded by an inflammatory halo

She underwent a mammography which showed increased right mammary gland opacity and very dense round opacities with regular contours associated with macro-calcifications. Breast ultrasound revealed multiple hypoechoic patches on the upper quadrants of the right breast with indistinct margins and the largest one measuring 43x16mm (Figure 2).

Figure 2: a. Mammography showing multiples round opacities with regular contours associated with macro-calcifications of right breast, Normal left mediolateral oblique mammogram for comparison **b.** Breast ultrasound showing hypoechoic areas in the upper quadrants of the right breast.

A core needle biopsy of a nodule was performed, and histopathological examination revealed a granulomatous epitheliogigantocellular inflammatory process with caseous necrosis (Figure 3). The diagnosis of mammary tuberculosis was retained and antibacillary treatment was started with good resolution up to day.

Figure 3: a. Histological image of breast tuberculosis showing a necrotizing granulomatous lesion (hematoxylin eosin stain $\times 20$), **b.** Higher magnification (hematoxylin eosin stain $\times 40$) showing multinucleated giant cells surrounded by lymphocytes.

Discussion

Tuberculosis is an infectious disease caused by *Mycobacterium tuberculosis*. Breast localization accounts for about 0.1% of tuberculosis cases in developed countries, it can reach 3.59% in endemic countries and mainly affects women during periods of genital activity, with a higher risk in breastfeeding women [2].

Tuberculous mastitis is characterized by a clinical and radiological polymorphism that may suggest a tumor origin, but the existence of fistulized axillary adenomegaly, recurrent breast abscess or breast fistula must remind us of the bacillary origin. The clinical presentation is usually associated with breast pain, breast nodule, abscess, or nipple discharge. Imaging results for tubercular mastitis are non-specific. It often presents as an asymmetry or developing mass on mammography and as an irregular hypoechoic mass on ultrasound, with or without internal vascularization [3].

Ziehl-Neelsen stain or *M. tuberculosis* culture lack sensitivity because lesions in tuberculous breast are often paucibacillary, and molecular biology techniques are more sensitive but quite expensive in our context [4].

Therefore, it seems that histopathological examination is a simple, quick and cost-effective alternative that frequently provides a diagnosis. The management of tubercular mastitis is medical based on antituberculosis drugs and the prognosis remains good if treatment is started earlier [5].

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