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Case Report

Breast tuberculosis: a case report

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ABSTRACT

Mammary tuberculosis is a rare disease that affects young women during the genital period, usually between the ages of 20 and 40 years, and remains rare in postmenopausal women. Its risk factors are multiparity, breastfeeding, breast trauma and chronic mastitis. Depending on the mode of contamination, there are 2 forms of mammary tuberculosis: primary or secondary. On ultrasound, breast tuberculosis often appears as a heterogeneous hypoechoic image, poorly limited with minimal posterior enhancement. It may also appear as a hypoechoic, homogeneous or heterogeneous image, well limited with posterior enhancement and some calcifications. Histological criteria suggestive of breast tuberculosis are the presence of epithelioid follicles and Langhans-type giant cells, which may or may not be associated with caseous necrosis. A certain number of diagnoses must be eliminated before the diagnosis of breast tuberculosis can be made, in particular breast cancer; it should be noted that the literature describes forms associating cancer and breast tuberculosis, hence the need for a histological study of the breast tissue in order to eliminate an associated carcinoma. It poses diagnostic and therapeutic problems. Current treatment is based on antituberculosis chemotherapy sometimes associated with surgery. The evolution of the disease is usually favourable with a well conducted treatment.

Keywords: Mammary tuberculosis, Anti-bacillary polychemotherapy, Caseous necrosis

INTRODUCTION

Tuberculous mastitis or mammary tuberculosis is a rare condition, even in endemic countries. It represents about 0.06% to 0.1% of all tuberculosis sites and 0.025% to 4.5% of all breast pathology. It occurs mainly during the period of genital activity, usually between the ages of 20 and 40, and is rare in postmenopausal women. It is thought to be favored by pregnancy, lactation and multiparity.¹ In fact, breast tuberculosis is often mistaken for a cancerous lesion, which can only be confirmed by bacteriological and anatomical-pathological examinations. We report a case of mammary tuberculosis in a pregnant woman at twenty eight weeks gestation.

CASE REPORT

Patient aged 23 years, gesticité 2 and parity 1, without notable pathological history nor notion of tuberculosis contagion. Pregnant with a pregnancy estimated at 28 weeks of amenorrhea according to a precise date of the last menstrual period. Admitted in our service for the management of a nodule of the left breast evolving since 2 months. On admission, a 4 cm nodule was found, adherent to the deep plane and mobile to the superficial plane, in the superior-internal quadrant of the left breast (Figure 1). The breast ultrasound showed a large mixed tissue mass highly located in the superior-internal quadrant, classified as BIRADS 4. The patient underwent a surgical biopsy, the histological study of which showed an epithelioid and

giganto cellular granulomatous mastitis with caseous necrosis, suggesting at first mammary tuberculosis (Figure 2). The patient was put on polytubercular chemotherapy: - Initial phase: Rifampicin (R) + Isoniazid (I) + Pyrazinamide (P) for 2 months. Then maintenance phase: Rifampicin (R) + Isoniazid (I) for 4 months. The evolution was favorable with treatment.



Figure 1: Front view of both breasts.

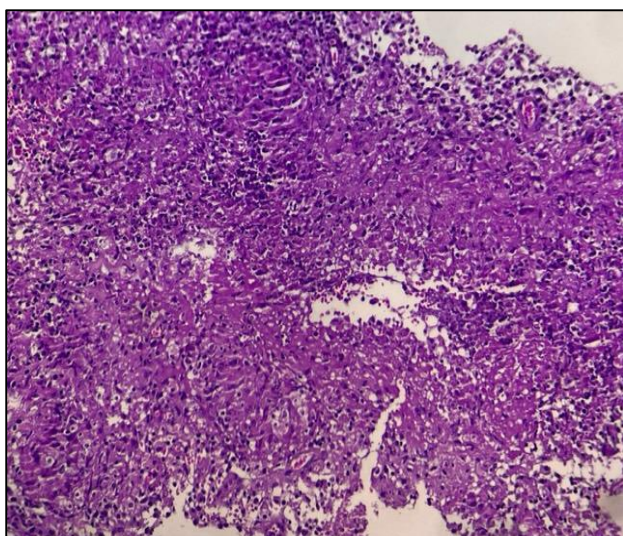


Figure 2: Microphotograph of epithelioid and gigantocellular granulomatous lesions with caseous necrosis (HE, x100).

DISCUSSION

Mammary tuberculosis has always been rare, even in countries where tuberculosis is endemic. Since its first description in 1829, approximately 900 cases of mammary tuberculosis have been reported in the literature.² It represents 0.5 to 4.5% of all breast diseases and its frequency varies according to geographic region.^{8,4} In 83 to 95% of cases, it affects women in their reproductive years between 20 and 50 years of age and its risk factors

are multiparity, breastfeeding, breast trauma and chronic mastitis.^{3,4} According to the mode of contamination, 2 forms of mammary tuberculosis can be distinguished.³⁻⁶

Primary mammary tuberculosis: Contamination occurs by direct inoculation of the bacillus of Koch (BK) through the galactophoric ducts or through a cutaneous lesion. It is probably favored by breastfeeding and pregnancy.

Secondary mammary tuberculosis: The breast is contaminated either by hematogenous or lymphatic route. In our case the tuberculosis was primary.

The symptomatology can simulate a large number of benign or malignant breast diseases. However, three forms are generally encountered:

The nodular form: It is manifested by a hard nodule, poorly limited and not very mobile, painless, accompanied or not by axillary adenopathies, evoking a malignant tumor.

The diffuse form: Less frequent, it involves the whole breast which is painful and inflammatory with inflammatory axillary adenopathies and frequently presents a cutaneous fistulization. And the sclerotic form: it is rather the prerogative of the elderly with the presence of an indurated and painful mass rarely evolving towards suppuration.² There are no specific mammographic signs of mammary tuberculosis. It shows suspicious images. Thus, this examination lacks specificity and is only an element of diagnostic orientation. On ultrasound, breast tuberculosis often appears as a heterogeneous hypoechoic image, poorly limited with minimal posterior enhancement. It may also appear as a hypoechoic, homogeneous or heterogeneous, well-limited image with posterior enhancement and some calcifications (6,7,8,9). Histologic criteria suggestive of breast tuberculosis are the presence of epithelioid follicles and Langhans-type giant cells, with or without associated caseous necrosis.⁸⁻¹⁰ A certain number of diagnoses must be eliminated before the diagnosis of breast tuberculosis can be made, in particular breast cancer; it should be noted that the literature describes forms associating cancer and breast tuberculosis, hence the need for a histological study of the breast tissue in order to eliminate an associated carcinoma.⁷⁻¹¹ Other pathologies to be ruled out are breast plasmacytosis, antibiotic-modified pyogenic abscess, actinomycosis, breast granulomatosis, sarcoma, mastitis with giant cell reaction on foreign body, and ductal ectasia.⁵⁻¹² Surgical treatment is essentially a means of diagnosis by performing biopsies, drainage of suppurated collections associated with excision of necrotic tissue or lumpectomy to provide histologic evidence. Treatment is mainly medical and is based on anti-bacillary polychemotherapy. This treatment is initiated after bacteriological or histological evidence, and the anti-tuberculosis drugs include: rifampicin, isoniazid and pyrazinamide for 2 months, followed by a combination of rifampicin and isoniazid for 4 months. the drugs are taken only in the

morning on an empty stomach and on a daily basis.^{6,14} Monitoring of the patient's compliance and surveillance of the efficacy and tolerance of the treatment is essential in all cases.^{6,13,14} Progression under well-managed treatment is usually favorable.

CONCLUSION

Breast tuberculosis often remains a diagnostic surprise. The clinical and radiological pictures are often misleading and pose a real problem of diagnosis, in particular in the context of breast cancer. The diagnosis is based on anatomopathological and bacteriological examination, and the treatment is based on anti-bacillary polychemotherapy.

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Ethical approval: Not required

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