

Tuberculosis of the Female Breast: A Case Report



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Abstract

Breast (mammary) tuberculosis is one of the rarest diseases manifested by extra-pulmonary localization of the disease accounting for 3-4% in regions particularly in India and Africa compared to less than 0.1% of breast condition in developed countries. This condition mostly comes into view, particularly in lactating women. The case that is presented for a female of about 25-year having a lump in her breast and occasional fever but with loss of weight and anoxia. Various types of diagnosis, including both hematological and biochemical and histological confirmation have been performed. Surgical treatments and further therapeutic management have been considered.

Keywords: Tuberculosis; Breast; Surgery; Histological examination

Introduction

Long back Sir Astley Cooper (1829) [1] a pioneer worker described the case of breast tuberculosis as “scrofulous swelling” in the bosom of young women, represented by a mass in breast having no or less pain. Mycobacterium tuberculosis is a bacterium that causes tuberculosis and affects chiefly the lungs. On the other hand, breast tuberculosis is a rare disease [2] that affects less than 0.1 % of breast injury in developing countries compared to 3-4% in India and Africa. Though it is not very prevalent in prepubescent males but can very much affect young lactating women [3]. The very outlook of the cases is the presence of a lump in the breast and very less frequency [3] of the multiple lumps that leads to confusion to the clinicians about breast tuberculosis with that of breast carcinoma [4,5] and often mistaken for other benign and malignant lesions of the breast. The present case is a married lady having two children.

Methods

The diagnosis is based on high index of suspicion back up by biopsy and histopathological examination finding of granulomatous lesion and response of anti-tuberculosis chemotherapy.

Presentation of Case

A young lady aged about 25 yrs presented with a history of gradually progressive lump in her left breast for last 3 months. She also complained of having low grade irregular fever for 15-20 days with progressive loss of weight and anoxia. There was no history of cough, haemoptysis, jaundice, melaena or dizziness. She complained of having vague pain in left shoulder, irritation in left upper limb. There was no family history of tuberculosis or carcinoma breast. She was married and mother of two children.

a. **Examination:** There were no significant findings in general examination. A lump 2½ cm X 2 cm in size was palpable in inner and lower quadrant of left breast. It was firm in consistency, non-tender and not fixed with the skin or chest wall. The nipple was normal and there was no axillary lymphadenopathy. Right breast was absolutely normal. Gynaecological examination revealed no abnormality.

b. **Investigation:** Her hematological and biochemical parameters were within normal limits. Chest radiography revealed no evidence of Koch's lesion or metastasis.

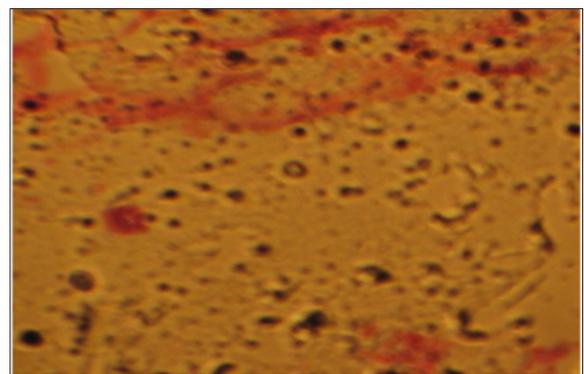


Figure 1: Showing giant cells and fat cells.

c. **Management:** In view of the consistency of the lump a clinical diagnosis of Ca-breast was made and it was operated without further loss of time. As soon as incision was given, yellowish pus came out. The lump was taken out and examined histopathologically from paraffin section which was proved to

be a Koch's granulomas due to presence of epidermoid cells and Langhans' giant cells (Figure 1). Necrosis (Figure 2) is also a prominent feature of the sections of the lump. Normally myoepithelial cells are slightly spindle shaped or elongated in nature with pale cytoplasm. Evidence of degradation of the myoepithelial cells (Figure 3) in the sections of the lump is another major feature to be encountered. The patient was started antitubercular therapy with, Rifampicin, 1NH, Pyrazinamide and Ethambutol.

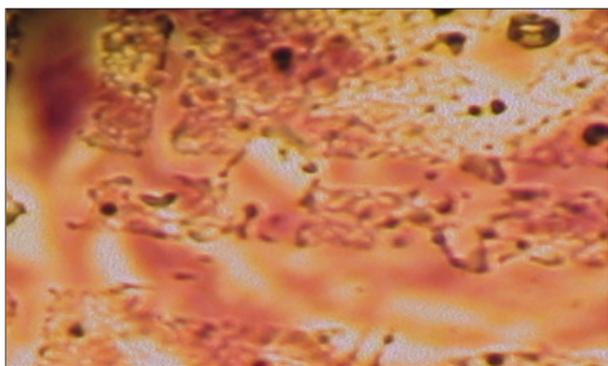


Figure 2: Showing necrotic with giant and fat cells.

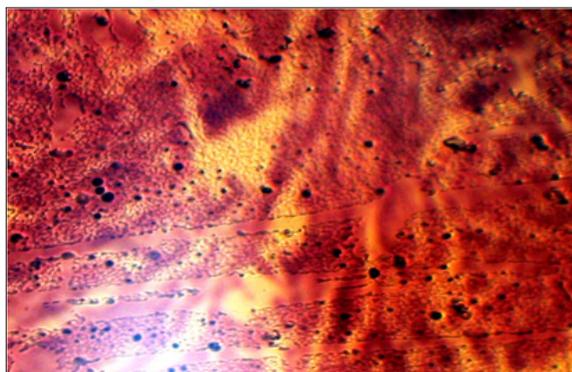


Figure 3: Showing degradation of myoepithelial cells.

d. Follow up: The patient is responding favorably and the scar is healthy with no signs of recurrence

Discussion

Tuberculosis of breast is very rare, but it may occur as tuberculous mastitis as evidenced by breast lump which mimics carcinoma of breast. About 0.1% of all breast lesions are considered as tuberculous mastitis [6] while it constitutes approximately 3.0% of surgically treated breast disease in developing countries [6,7]. In their series there was lump with sinus in 29% of cases and

association of axillary lymphadenopathy in 41% of tuberculous mastitis as a HIV disease. The females particularly of reproductive age group, when they are in lactation period are at risk for tuberculous mastitis. Both the breasts are involved with equal frequency in an uncommon disease like this due to vascular nature of the breast [8]. Though it is very rare, still have an effect on mainly woman of Indian subcontinent and Africa.

Most of the breast tuberculosis patients do not present pulmonary or systemic symptoms [8,9]. Studies have shown that breast tuberculosis can be classified as nodular, dispersed and abscess type and it is the abscess type which is common in young women. The common clinical sign of breast tuberculosis is the presence of a lump, having or not having a duct, painful or not and its location. The lump may imitate a breast carcinoma. The lump may be followed by inflammation and abscess formation. In the present case, breast tuberculosis commonly there as a lump in the inner and lower quadrant of breast followed by abscess formation. Upon surgery, it shows drainage of pus from the tissue material suggesting a case of mammary tuberculosis. Further, histopathological study of the lump in the present case manifested by fatty cells, necrotic cells and with Langhans -type giant cells contributes in diagnosis. In addition, granulomatous lesions detected are also a diagnostic feature. The present case supports antitubercular therapy as a basis of treatment.

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