

CASE REPORT

TUBERCULOUS MASTITIS: A CASE REPORT

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ABSTRACT: As Tuberculosis has come under better medical control in many parts of the world, tuberculosis of breast has been mentioned less frequently as a medical problem in developed countries, but it remains a serious condition in developing countries. Though the incidence of tuberculosis is very high in India, involvement of breast is extremely rare. In younger patients, the lesion is more like an abscess where as in older patients lesion tends to produce a mass which clinically simulates carcinoma. Here we present a case of Tuberculous mastitis in a premenopausal female clinically presenting with a unilateral breast lump with same sided axillary lymphadenopathy. Fine needle Aspiration Cytology (FNAC) of breast lump was in favor of malignancy but histopathology of excised specimen confirmed it to be Tuberculosis. Standard four drug anti tubercular was advised and she was asymptomatic with six months follow up. She did not turn up for further follow up.

KEYWORDS: Tuberculosis Breast Anti tubercular drugs.

INTRODUCTION: Tuberculosis is a common and a major public health problem in India since long.¹ Because of very high incidence and prevalence of pulmonary tuberculosis in India, different forms of extra-pulmonary tuberculosis are also relatively high.² Breast tissue along with spleen and skeletal muscles are relatively resistant to Tuberculous infection.³ With increasing frequency in human immunodeficiency virus (HIV) positive individuals, Tuberculous mastitis has been reported as a manifestation of Acquired immune Deficiency Syndrome (AIDS).^{3,4,5} Tuberculous mastitis not associated with HIV infection is primarily a disease of premenopausal, parous women, but can affect adult female breast at any age. Unilateral breast involvement is more common than bilateral. Male breast is extremely rare to get involved.⁴

Infection of breast may be the primary manifestation of tuberculosis, but this is the most uncommon pattern of presentation. It is considered more likely that breasts are infected secondarily in most patients even when the presumed primary focus remains clinically in apparent. The majority of patients also have ipsilateral axillary Tuberculous lymphadenitis which may be the source of mammary infection. The route of lymphatic involvement is retrograde from thorax and neck to axilla or from traceo bronchial and para tracheal to internal mammary lymph nodes. The other route can be direct extension from lungs, chest wall or bone. Haematogenous dissemination is another source of primary infection which has been observed in patients with AIDS.^{2,4}

CASE REPORT: A 35 year female from a lower middle class family had complaints of slowly growing, occasionally painful mass, in left breast. The lump did not respond to antibiotics. Then she noticed same sided axillary swelling.

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On examination of left breast there was no nipple retraction or discharge. An irregular 2x2 cm non tender firm partly mobile lump was palpable in upper outer quadrant. There was a single palpable 2x1 cm mobile lymph node in left axilla. Examination of right breast did not reveal any abnormality. There were no palpable neck nodes. Other systemic examination was within normal limits. She had two full term normal deliveries.

Laboratory investigations revealed haemoglobin of 8.5 gm%, WBC count was 7800 cells/cumm with 43% lymphocytes and ESR was 38 mm at one hour by Wintrobe's method. Sputum for acid fast bacilli was negative. X-ray chest showed prominent bronchovascular margins, no caseation or cavity was seen.

With a clinical suspicion of a benign lesion, Fine Needle Aspiration was performed from the lump. Microscopically cells were suspicious of malignancy and a biopsy was advised.

Mammography was performed with suspicion of malignancy and was reported as BIRADES grade III lesion. She being clinically fit for surgery, left sided simple mastectomy was performed with axillary clearance and specimens were sent for histopathological examination.

MORPHOLOGY: On gross received a specimen of left breast with nipple and areola, 10x5x3 cm. There was no nipple retraction or discharge. Cut surface revealed single rounded whitish 1x1 cm firm mass with few tiny whitish areas (Fig.1). Also received left axillary lymphnode, single 2x2 cm whitish soft to firm and cut surface was whitish with yellow areas at places.

MICROSCOPIC FEATURES: Multiple serial sections from breast shows mammary ducts and acini with plenty of granulomas consisting of epithelioid cells, lymphocytes and Langhan's type of giant cells and diffuse areas of caseation necrosis and extensive fibrosis with destruction of breast stroma (Fig. 2, 3). The section from lymphnode revealed Tuberculous granulomas. Zeihl Neelsen stain was negative for acid fast bacilli in breast as well as lymphnode. So, the final diagnosis made was Tuberculous Mastitis with Ipsilateral Tuberculous Lymphadenitis.

DISCUSSION: Tuberculosis of breast is extremely rare. Sir Astley Cooper in 1829^{2,3,4} first described this entity as "scrofulous swelling in the bosom of young women". With tuberculosis still endemic in developing countries, the incidence of involvement of breast is 0.25-4.5%. Tuberculosis of breast is usually a disease of women aged between 20 and 50 years.³ The typical patient is a young woman presenting with an irregular lump in the breast, sometimes fixed to the overlying skin or underlying muscle and is often overlooked and misdiagnosed as carcinoma or pyogenic abscess.⁴ Purulent nipple discharge is seen in most but fistulas and sinus tracts occur in advanced disease.³ Our patient had a poorly defined lump without nipple retraction or discharge with ipsilateral axillary lymphadenopathy.

The usual presentation is pulmonary, but extrapulmonary tuberculosis is also important clinical problem, which is difficult to diagnose.⁶ The diagnosis of Tuberculous mastitis is difficult since the disease has multiple patterns of clinical presentation. The most common form is slowly growing solitary painless mass which mammographically mimics carcinoma, as was seen in our patient. It can sometimes present with formation of sinuses.⁴ Makanjuola D et al (1996)⁷ observed the combination of a breast mass with a sinus tract extending to a superficial bulge and

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thickened skin as a distinctive feature of mammary tuberculosis. A diffuse type of Tuberculous mastitis is characterized by development of multiple painful nodules throughout breast, which can be mistaken for inflammatory carcinoma. Occasionally it can coexist with carcinoma in the same or opposite breast.⁴

Radiological imaging modalities like mammography or ultrasonography are unreliable in distinguishing it from carcinoma because of the variable pattern of presentation of such an inflammatory lesion.³ Cytologic examination of nipple discharge may show nonspecific mixture of cells with necrotic debris. The needle aspirated specimen usually consist of epithelioid cells, sometimes Langhan's giant cells with lymphocytes^{4,8} Surgical biopsy is essential to establish the diagnosis of Tuberculous mastitis.⁴ As the bacilli are isolated in only 25% of cases,³ demonstration of caseating granulomas from the breast tissue and involved lymph nodes is required for the diagnosis.^{3,4}

In country like India, where tuberculosis is endemic, caseous necrosis with epithelioid cell granulomas even in absence of acid fast bacilli (AFB) should alert one to the diagnosis of tuberculosis. A sufficient trial of anti-tuberculous treatment must be given and only when results are not up to the expectation, should an alternative diagnosis be suggested.³

Treatment of tuberculosis is curative regardless of site, if it is instituted early and if the organism remains sensitive to all first-line anti-tuberculous drugs.⁶ Standard AKT therapy for six months in cases of Tuberculous mastitis usually results in good clinical response, as was also seen in our patient. Simple mastectomy is reserved for cases with extensive disease causing a large painful ulcerated mass involving the entire breast.^{3,9}

To conclude, Tuberculous lesion in breast is an obscure disease often mistaken for carcinoma or pyogenic abscess, especially if well-defined clinical features are absent. Thus, a high index of suspicion is essential as the disease can be treated conservatively with current anti-tuberculous drug regime.

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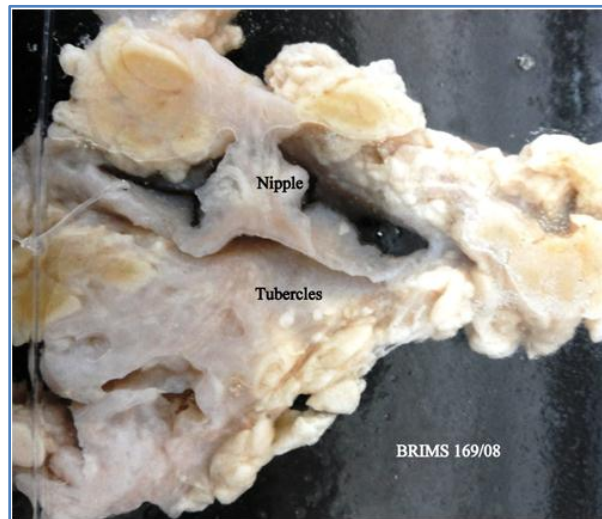


Fig. 1

Fig. 1: Simple mastectomy specimen showing nipple and breast tissue along with a rounded mass and few small whitish areas.

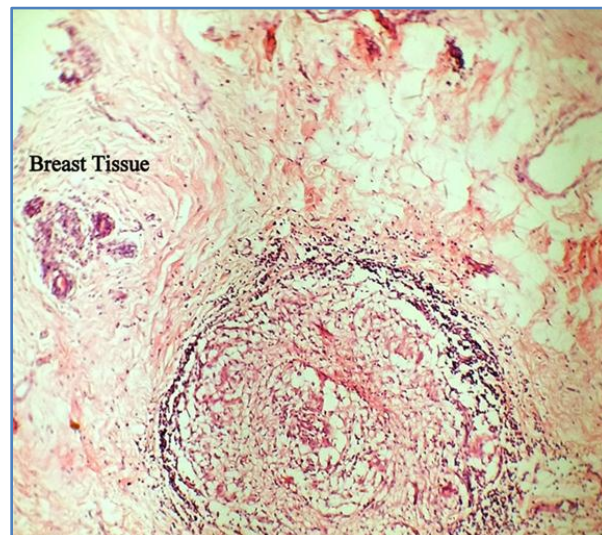


Fig. 2

Fig. 2: Shows breast acini along with fibrofatty stroma and granuloma in evolution with epithelioid cells and a rim of lymphocytes (H & E 10x10 X).

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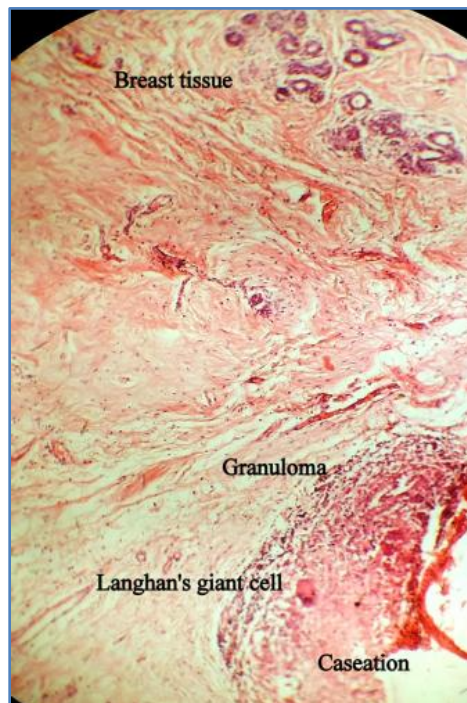


Fig. 3

Fig. 3: Shows breast acini and fibrofatty stroma with well difined granuloma consisting of caseation necrosis surrounded by epithelioid cells, Langhan's giant cell and a rim of lymphocytes (H & E 40x10 X).

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