

Tubercular Mastitis Mimicking Malignancy

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Citation

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Abstract

Breast tuberculosis is a rare form of tuberculosis. Reports on breast tuberculosis from India have been few; reported incidence of breast tuberculosis amongst the total number of mammary conditions varies between 0.64 and 3.59 per cent. Most accepted view for spread of infection is centripetal lymphatic spread as axillary node involvement was shown to occur in 50 to 75 per cent of cases of tubercular mastitis. We present a case of primary tuberculosis of breast which presented as a breast nodule seems to be malignant.

INTRODUCTION

Tubercular mastitis is a rare form of extra-pulmonary tuberculosis despite one third of the world's population being infected with tubercle bacilli¹. The first case of mammary tuberculosis was recorded by Sir Astley Cooper in 1829 who called it 'Scrofulous swelling of the bosom'². Nearly 500 cases of breast tuberculosis have been documented world wide³. Despite the high incidence of tuberculosis in India, reports of breast tuberculosis have been few^{4,5}. This must be due to disease overlooking and misdiagnosing as carcinoma or pyogenic abscess⁶.

CASE REPORT

A 52 years old rural housewife presented with progressively increasing, painless lump in right breast of 3 months duration. She was also complaining of low grade fever. There was no history of any nipple discharge. On examination, she had a non tender, firm, ill-defined lump in central compartment of right breast just above the nipple. There was no evidence of fixity to overlying skin or underlying structures. Nipple and areola of right breast were healthy and opposite breast was normal. There were 3-4 right axillary lymph nodes about 1.5cm in diameter each, nontender and matted together. Chest examination was normal. Laboratory investigations were not suggestive of any systemic illness. Hb – 10.4g/dl, TLC – 5200/cmm, DLC – P62L38, Blood urea – 26mg/dl, Serum creatinine – 0.4mg/dl, Serum bilirubin – 0.5mg/dl. Skiagram chest was normal. There was 10mm induration in Montoux test. Fine Needle Aspiration Cytology (FNAC) of right axillary lymph nodes was inconclusive and was suggestive of chronic non

specific inflammation. High resolution ultrasound of right breast showed a poorly defined hetero echoic space occupying lesion with irregular margins with infiltration of skin and subcutaneous tissues in medial upper quadrant suggestive of malignant lesion (Fig.1).

Figure 1

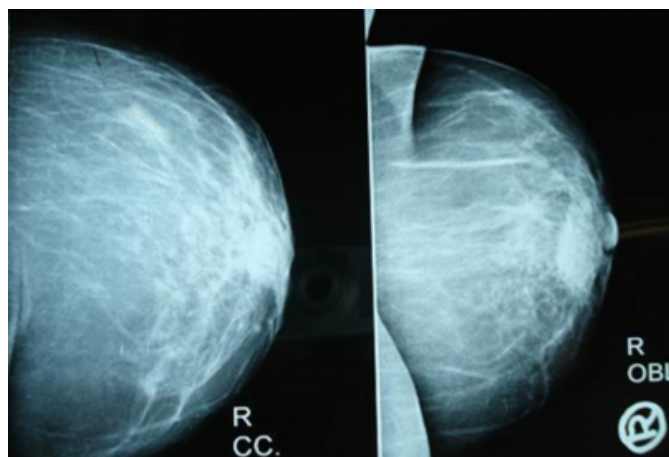
Figure 1: High resolution ultrasound of right breast showed a poorly defined hetero echoic space occupying lesion with irregular margins with infiltration of skin and subcutaneous tissues in medial upper quadrant suggestive of malignant lesion



Mammography of right breast showed a poorly defined dense lesion with stellate margins just superior to the nipple also suggestive of malignancy (Fig.2).

Figure 2

Figure 2: Mammography of the right breast showed a poorly defined dense lesion with stellate margins just superior to the nipple.



Considering the age of the patient and the sonographic findings, swelling was thought to be malignant. FNAC of the breast nodule was performed but to our surprise it showed well formed epithelioid granulomas in background of macrophages and lymphocytes with caseous necrosis suggestive of tubercular etiology. To confirm the diagnosis, mammography guided incisional biopsy was ordered and the histopathology was also suggestive of tubercular mastitis. Sputum for acid fast bacilli, done on three separate occasions, was negative. Repeat chest radiograph did not reveal any pulmonary foci of tuberculosis. So a breast nodule looking to be malignant finally came out to be tubercular.

The patient was put on four drugs anti tubercular therapy (Rifampicin, Isoniazid, Ethambutol and Pyrazinamide). Now, after three months of therapy, the lump has regressed to the minimal with resolution of axillary lymph nodes.

DISCUSSION

Extrapulmonary tuberculosis occurring in the breast is extremely rare. High resistance offered by the breast tissue to the survival and multiplication of tubercle bacilli has been postulated to be the cause for the uncommon nature of the disease. It is most commonly seen in females in the reproductive age group. However, in recent years it has been reported in the elderly also⁷. Among the various risk factors associated with tubercular mastitis are multiparity, lactation, trauma and past history of suppurative mastitis.

Tubercular mastitis can occur as primary disease or can be secondary to tuberculosis elsewhere in the body. Primary tubercular mastitis is extremely rare and is thought to occur

due to direct inoculation of the breast by *Mycobacterium tuberculosis* through skin abrasions or duct openings in the nipple. Secondary involvement of breast is more common. The organisms may reach the breast through lymphatic or haematogenous route or by contiguous spread from the ribs and pleural space⁴. Lymphatic spread by retrograde extension from the axillary lymph nodes is considered to be the most common mode of spread, though spread from cervical and mediastinal lymph nodes has been occasionally reported⁸.

Breast tuberculosis was first classified in to five different types by McKeown and Wilkinson⁹. But at present, it may be reclassified as nodular, disseminated and abscess varieties. The sclerosing type, mastitis obliterans and miliary variety are of historical importance only¹⁰. Nodular type is most common and the lesion presents as a localized mass with extensive caseation. Disseminated type involves the entire breast with multiple sinuses. Breast abscess is often a common mode of presentation of breast tuberculosis, especially in young women.

CONCLUSION

Breast tuberculosis commonly affects women in their reproductive age group, between 21-30 years, similar to the highest incidence of pulmonary tuberculosis reported in the same age group of females. It most commonly presents as a lump in the central or upper quadrant of the breast. It can also present as edema of the breast or as a breast abscess. Bilateral involvement is common. Regional lymph node involvement is very common. Constitutional symptoms are seldom present.

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