Case Report

Primary Tuberculosis of Breast: A Case Report

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ABSTRACT

Tuberculosis (TB) of breast is considered as one of the rarest form of extra-pulmonary tuberculosis. With millions and billions of people affected with tuberculosis worldwide, primary TB of breast is still rarely reported; even secondary TB of breast (metastasized from any primary source such as pulmonary TB) is sparsely seen. TB of breast can often be mistakenly misdiagnosed as a case of breast carcinoma or breast abscess due to similar clinical presentation. TB breast is most commonly seen in reproductive age of female, multiparous, lactating mothers; however women of older age with primary TB breast have been infrequently reported[1].

Keywords : Carcinoma, Tuberculosis, Abscess, Metastasis.

INTRODUCTION

Tuberculosis is very old disease as *Mycobacterium tuberculosis* (bacilli) has co-existed in human since centuries. According to studies TB continues to be one of the common causes of morbidity and mortality. Currently, in every second one person is detected tuberculosis positive worldwide. Although TB mostly affects lungs as it is airborne disease but any organ can be affected by hematogenous spread (secondary TB). Mammary gland and spleenic tissue are considered to offer resistance to multiplication of tuberculosis bacilli and hence, secondaries in these are rarely seen [1].TB of breast is uncommon with incidence of 0.1-3% of all breast diseases treated surgically [1]. However, incidence is higher in undeveloped than developed countries[1].

CASE REPORT

A 60 year old female came with complains of painless lump over her right breast since 2 months which was gradual in onset and progressive in nature. No history of fever, pain, any nipple discharge, weight loss and night sweat. No history of hypertension, diabetes, thyroid disease or tuberculosis. No history of similar complains in the past. No history of tuberculosis or any malignancy in the family. On examination lump was about 5x4cm and involves inner upper and lower quadrants of right breast along with nipple involvement. Both breasts lie at same level with nipples also at same level but right nipple was mildly retracted; surrounding skin of the lump was red, smooth, and shiny. No visible scar or skin pigmentation over breast, no discharge from nipple, no crack/fissure, and no ulcer over nipple was noticed. No diminution of size of areola. No oedema of the corresponding arm. There was no local rise of temperature and the lump was not tender. It was firm, non-mobile, irregular, fixed to overlying skin but not fixed to underlying muscles or chest wall, margins ill defined. Fluctuation test negative. Axillary LN was palpable.

Suspecting the patient to be a case breast cancer, she was advised for routine blood tests and FNAC.

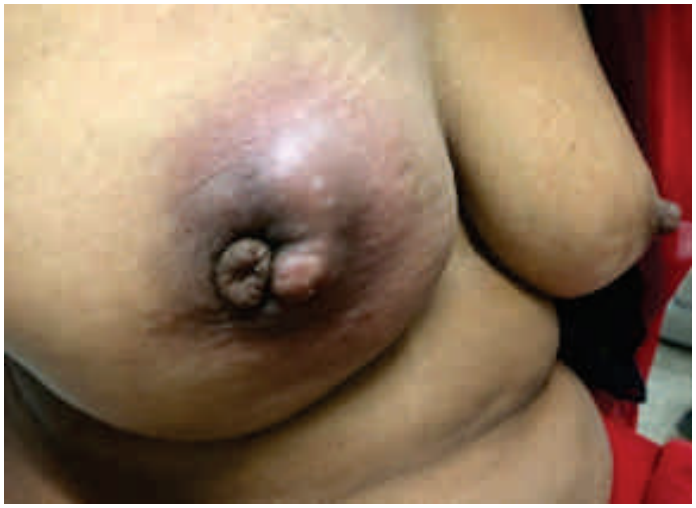

Figure 1: shows large lump involving inner upper and

Lower quadrants of right breast with nipple retraction

Her Hb was 11.3 gm/dl; TLC 9800/cumm, with 69% neutrophils, 20% lymphocytes; Platelet count 4.22 lac/cumm; Blood urea 25.7 mg/dl; BUN 12.8 mg/dl; Serum creatinine 0.46 mg/dl; Serum uric acid 2.6 mg/dl; Total bilirubin 0.20 mg/dl; direct bilirubin 0.10 mg/dl; indirect bilirubin 0.10 mg/dl. she had mildly raised ALP (137.0 /L), S. Globulin (4.5g/dL) and low A/G ratio (0.79) as serum albumin was 3.56 g/dl. No other significant routine test findings were seen.

Following this FNAC was done which revealed “Numerous well defined epitheliod cells granulomas comprising of epitheloid cells, lymphocytes and histiocytes against background of caseous necrosis and acute supportive inflammation” on microscopic examination. Findings were suggestive of "Granulomatous Mastitis (Possibly tubercular)”. Trucut needle biopsy also confirmed diagnosis of tubercular right breast.

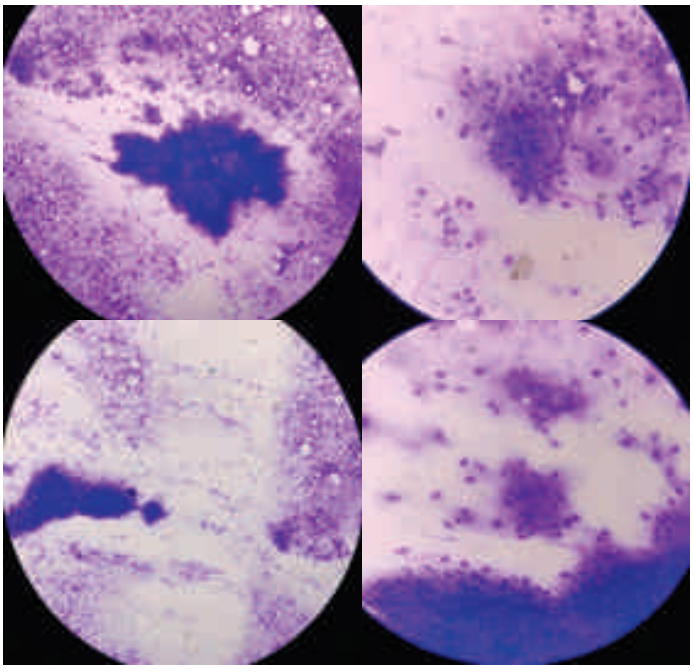

Figure 2: FNAC Showing well defined epitheloid granulomas against the background of caseous necrosis.

Mammography was also done. CC and MLO views of right breast on mammography showed "large ill defined area of radio density seen in subareolar region of right breast with involvement of adjacent soft tissue and extending upto skin and nipple areola complex."Impression of "BIRADS-3 lesion in right breast" was confirmed on mammography.

Aspiration of the lump and RTPCR of the caseating material was done which further confirmed it to be tubercular. Patient was thus, confirmed to be case of primary tuberculosis of breast as she had no detected source of spread of tuberculosis. Anti tubercular treatment was started according to ATT protocol and patient was advised regular follow up and review of mammography after 6 months to rule out the suspicion. Monthly follow-up showed regression of the lump with the treatment; even mammography repeated after 6 months showed resolution of the lump.

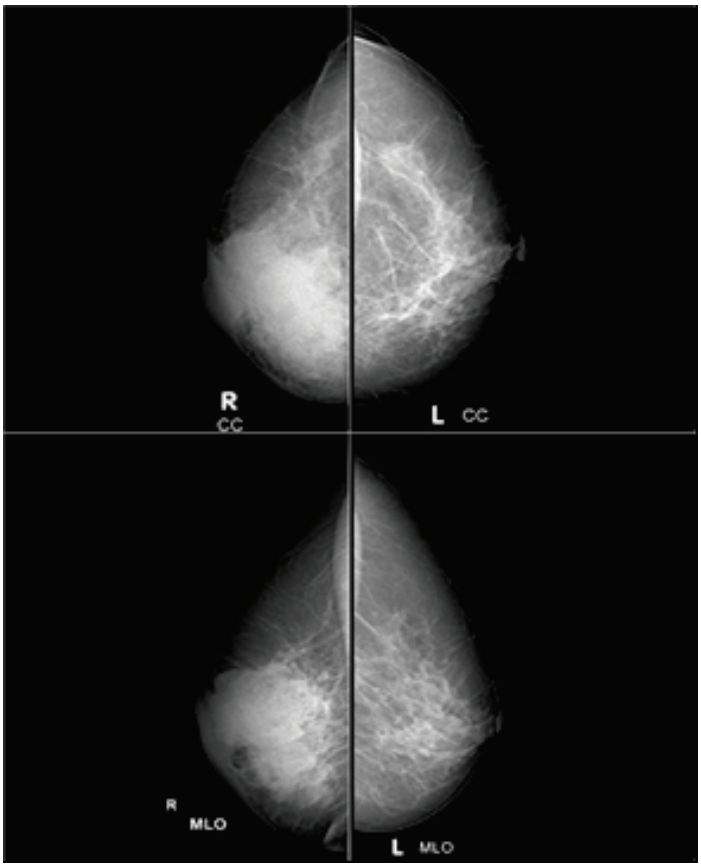

Figure 3: Mammography showing large ill defined area of radio density in sub-areolar region of right breast.

DISCUSSION

Lactating women appear to be at higher risk, probably due to increased blood supply to breasts and to dilated ducts that makes them more vulnerable to infections. [1] Tuberculosis mastitis often presents unilaterally than bilaterally and is more common in males than females. [3] Breast tuberculosis can be primary when no other foci of infection detected or can be secondary when there is detectable source of spread of infection. It can have spread to breast via hematogenous route, lymphatic or by direct extension from axillary lymph nodes or by inoculation of traumatized skin or ducts[2].

Most of the authors consider almost all cases of breast TB as secondary even if primary location is occult[2].

Primary breast TB is considered to be caused by infection of breast through skin abrasions or through main ducts of nipple. Patient mostly presents with lump, painful or painless, mostly in upper outer quadrant of the breast. [3] Lump mimics breast carcinoma, as it is firm in consistency with irregular border, fixed either to skin, muscle or to chest wall. Lump if untreated can lead to abscess formation, followed by inflammation, skin ulceration and diffuse mastitis. Therefore, recurrent abscesses of breast which do not respond to drainage and antibiotic therapy raises suspiciousness of breast tuberculosis.

All lumps in the breast in an elderly female are not Carcinoma, as in our country tuberculosis is very common and since, breast tuberculosis mimics cancer it's always better to get all relevant investigations done to reach the diagnosis. Therefore, the surgeon should be aware of this fact before contemplating any definite procedure

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