Case Report

Secondary Tuberculosis of bilateral breasts in a nulliparous female: A rare entity

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Abstract:

Although tuberculosis involves any part of body, but tuberculosis of breast and spleen are rare as they offer resistance to the survival and multiplication of tuberculosis bacillus [1].Henceforth tuberculosis of breast is an uncommon with an incidence of 0.1-5% (0.1% in developed countries and 0.3%-5% in endemic countries) in all patients with breast disease treated surgically [2]. Reported incidence of isolated tuberculosis of breast ranges 0.10% to 0.52%. Being rare, it mimics malignancy or breast abscess clinically as well as radio logically. Association of axillary lymph nodes are found in one-third cases of breast T.B [3,4], and involvement of breast can be primary or secondary to some focus in body. A case of 45 years of secondary tuberculosis of bilateral breast from remote area of Jammu India is being reported. Presentation at admission was painless discharging sinuses of both breasts. Affecting source of disease was miliary tuberculosis of both lungs. Antibiotics and DOTS were started with no recurrence in follow up.

Keywords: Nulliparous female, tuberculosis

Introduction:

Although tuberculosis involves any part of body, but tuberculosis of breast and spleen are rare as they offer resistance to the survival and multiplication of tuberculosis bacillus[1]. Henceforth tuberculosis of breast is an uncommon with an incidence of 0.1-5% (0.1% in developed countries and 0.3%-5% in endemic countries) in all patients with breast disease treated surgically [2]. Reported incidence of isolated tuberculosis of breast ranges 0.10% to 0.52%. Being rare, it mimics malignancy or breast abscess clinically as well as radio logically. Association of axillary lymph nodes are found in one-third cases of breast T.B [3,4], and involvement of breast can be primary or secondary to some focus in body. A case of 45 years of secondary tuberculosis of bilateral breast from remote area of Jammu India is being reported. Tuberc-ulosis is a disease of ages and tuberculosis bacilli have been found back 5000 B.C , as pott's spine have detected in Egyptian Mummies [5]. Over one billion suffer from tuberculosis worldwide. Prevelance of mammary tuberculosis has been estimated to be 0.1% of breast leisions detected histopathologically [6].Clinical signs of mammary tuberculosis are found to be insidious and non specific and simulate breast cancer.Studies have shown that mammary

tuberculosis affects multiparous,lactating women ,young females, although may be seen in males[7]. Mostly Breast can be primary site, but most commonly mode for tuberculosis spread to breast is through lymphatic system like cervical, axillary mediastinal nodes or directly by underlying structure like lungs, ribs. It may be present as lump in centre or upper quadrant with multiple painless discharging sinuses.

Case history

An unmarried 45-years female from remote area of Jammu, presented in surgery OPD with multiple discharging sinuses both breasts from the last 2 years [figure 1]. The discharge was mostly serous in nature, spontaneous, followed by cessation of its own and was progressing towards bilateral axilla. Patient also had history of weight loss since one year; it was gradual in onset with progressive loosening of clothes with decreased muscle mass. Patient also complains of fever (low grade) during night time. She had undergone excision of node 8 years back in left cervical region, but there were no records available. Patient was poorly built with vitals within normal range with no systemic abnormality but was having both axillary and cervical lympadenopathy. Clinical examination shows multiple discharging sinuses bilaterally with skin ulcerations with cheesy white discharge from both nipples [figure 2]. Discharge was serious, copious with foul smelling and wetted the undergarments of patient. Axillary and cervical lymph nodes were palpable which were firm, tender and mobile. Patients Hb was 9.8g/dl, TLC 8000 with neutrophils 72%, ESR 45 mm, KFT and LFT were normal with Total proteins 4.3%. Mantoux test was positive (15x13 mm). X-Ray chest revealed multiple patchy opacities suggestive of miliary tuberclosis [figure 3]. Ultra sound of breast showed sinus tracks, and enlarged lymph nodes with calcification [figure 4]. CT-Scan of chest showed miliary tuberculosis. FNAC of lymph node and lymph node biopsy showed chronic inflammatory cells with areas of caseous necrosis and giant cells suggestive of tuberculosis [figure 5].

Discussion:

In 1829 Scrofulous swelling of the bosom' was the metaphor prepounded by Sir Astley cooper to define breast tuberculosis [8]. Breast lump is the most common presentation in mammary tuberculosis [9]. It can be misdiagnosed for malignancy, fibro adenoma or breast abscess. Variants in which breast tuberculosis can be identified are as nodular, disseminated and sclerosing. These features result in sinuses, lumps, ulcers and recurrent abscesses. Pain if present can be dull and constant in breast tuberculosis. It commonly affects young multiparous, lactating women. Any age can be involved say from 6 months to 73 years, with maximum incidence between 20 to 40 years [10]. In our case it was nulliparous, un-married, young female with both breast tuberculosis, which is rarely reported.

Wilson et al (1963) showed that right and left breast were involved equally[11]. Sharma found the duration of symptoms ranged in between 6 months to 2 years[12]. Tuberculosis of breast may be primary when no other underlying focus exists, and may be secondary when preexisting pathology is else somewhere. Tuberculosis can spread to breast by lymphatic and hematogenous route or directly and can dwell inside for longer duration. Earlier it was thought that breast gets involved by tuberculosis due to retrogade lymphatic extension from axilla, cervical and mediastinal lymph nodes [13], but some cases have been detected where there is no lymphadenopathy detected by physical exam and ultrasonography with

no other underlying foci of tuberculosis and chest X-ray was normal. Direct infection occurs through skin abrasions or milk duct lactation due to increased vascularity of breast which promotes infection and dissemination of bacilli.[15]

Also CT scan and MRI are not diagnostic without histological confirmation. Granulomatous mastitis can be one of the differential diagnosis for tuberculosis breast,as on histology it presents with granulomas, giant cells which are also seen in tuberculosis breast but the former lags in caseous necrosis as was seen in our case, hence suggesting tuberculosis .[16]

Conclusion:

Although secondary tuberculosis of breast is rare entity, an underlying miliary tuberculosis of lung can be offending agent and can lead to discharging sinuses of breast. Clinical awareness is essential when treating non specific breast abnormalities particularly in endemic places. Diagnosis should be made by FNAC, histopathology and ATT forms hub of treatment avoiding surgical intervention.

Figure 1: Showing multiple discharging sinuses with axillary lymphadenopathy shown by triangle

Figure 2: showing multiple sinuses with undermined edges shown by arrow

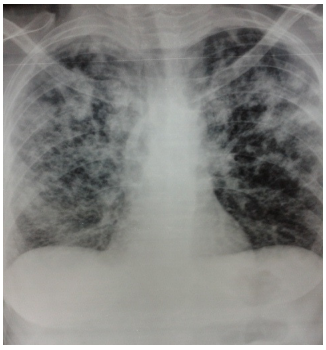

Figure 3: X-ray chest showing multiple miliary shadows

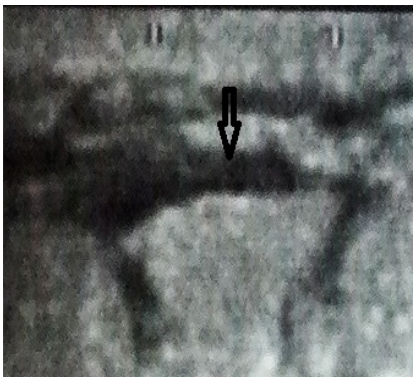

Figure 4: Ultrasound breast showing multiple sinus tracts shown by arrow

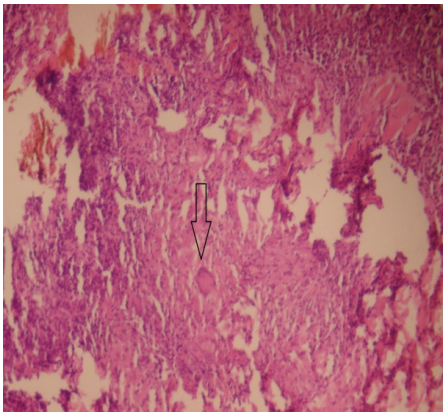

Figure 5: Lymph node biopsy showing caseous necrosis with gaint cells as shown by arrow

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