INTRODUCTION

Tuberculosis of the breast is significant due to its rare occurrence and mistaken identity with breast cancer and pyogenic breast abscess. It typically affects young lactating multiparous women and can present either as an abscess or as a unilateral, painless breast mass. A case of 22 year unmarried female presented with discharge breast and a small abscess. Radiological and cytological methods remained nonspecific and tubercular mastitis was diagnosed on Ziehl Neelsen staining and culture for Mycobacteria. A multifaceted approach is needed to reach the correct diagnosis.

CASE REPORT

A 22 years old, unmarried, well educated female visited surgery OPD in Dec’12 with chief complaint of lump breast. On examination, a lumpy mass was felt. On ultrasono-mammography, both breasts showed normal fibro glandular architecture. There was no evidence of mass/cysts in either breast, no e/o dilatation of ducts on either side, bilateral retroareolar region was normal, both axillae normal, no lymphadenopathy was seen. Aspiration for cytology was tried from the suspected site, but it showed fat cells only. The patient was sent back after symptomatic treatment. About a month later, the patient presented again, now to the Obstetrics and Gynae OPD with chief complaint of discharge from nipple right breast since one day. On examination, both breasts were normal with no lump on palpation, mild mastalgia and a minimal discharge was seen. The discharge was brownish in colour. There was no erythema and no retraction of nipple. Her menstrual history was normal and regular. All her routine investigations also showed no abnormality. Sono-mammography showed normal microscopic and not radiological or histo-pathological examination was diagnostic.

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breasts. A surgical opinion was again sought for. Surgical consultation showed a small abscess with induration and brownish discharge right breast in peri-areolar region. The patient was advised for incision and drainage of the suspected lesion. She came for the procedure after about a month. Incision and drainage was done and the tissue was sent for histo-pathological examination which revealed chronic nonspecific inflammation. The patient was put on Augmentin and Lyser-D for 5 days.

After about a month of this procedure the patient presented again to the surgery OPD with similar complaint of discharge from right breast since one day and feeling of lump. There was no evidence or complaint of any other sign or symptom. She was investigated completely for haematological indices, blood glucose profile, thyroid function tests and chest X-ray. All reports were normal. A second time, the abscess was opened and incision with drainage and curettage was done. The tissue sent for histopathological examination and again showed non specific chronic inflammation. This time the abscess pus was sent for microbiological examination for gram staining, acid fast staining and bacterial cultures. Gram staining showed only polymorphs with no bacteria and bacterial culture was sterile up to 48 hrs. Initial screening under fluorescent microscope for acid fast bacilli was done followed by Ziehl Neelsen staining. Auramine staining (Figure 1) and the Ziehl Neelsen staining (Figure 2) both were positive for acid fast bacilli and later the culture on LJ medium was positive for Mycobacterium tuberculosis.

On the basis of smear examination by ZN staining, the patient was referred to DOTS centre for anti tubercular treatment. The patient was put on four drug (HRZE) therapy for two months and two drugs (HR) for four months, a total of six month therapy. The patient came for a follow up after three months and fine with no recurrence.

**DISCUSSION**

Tubercular mastitis is still considered a rare clinical entity as very few cases are reported. In India, approx. 10 million are affected by pulmonary tuberculosis but only a few hundred of breast tuberculosis. This can be attributed mainly to a lack of awareness of manifestation of this disease or misdiagnosis. The other reason is the resistance offered by breast tissue to the survival and multiplication of tubercle bacillus similar to that offered by spleen and skeletal muscle. Breast tuberculosis usually affects women in their reproductive age group of 20-40 yrs and is uncommon in pre-pubertal girls and older females. Females during lactation are more susceptible as lactating breast is more vascular and also susceptible to trauma. As contrast, our patient was a 22 year old unmarried female. A study conducted by Puneet et al showed incidence of breast tuberculosis as 4.13% out of 1016 breast lump cases out of which 19% were lactating, and 88% were misdiagnosed.

Tuberculosis of breast may be primary or secondary to lesion elsewhere in the body. Primary form is quite rare. In our case, as there was no other focus found in the body on complete examination, the lesion was primary.

The commonest presentation of breast tuberculosis is as a lump in the breast, that too in the upper outer quadrant of the breast as in carcinoma. But in our case the site was sub-areolar which is quite unusual and the presenting symptom was discharge from the nipple with lump breast.

Different modalities are helpful in diagnosis of breast tuberculosis like sono-mammography, cytological studies

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*Figure 1:* Photograph showing Mycobacteria on auramine staining under fluorescent microscope in the specimen from breast abscess of the patient

*Figure 2:* Photograph showing smear positive for acid fast bacilli from abscess aspirate
and microbiological examination. In our case the first two modalities gave non specific results and the patient presented with repeated lesion. High degree of suspicion by the surgeon and microbiological examination led to the definite diagnosis by direct detection of the acid fast bacilli in Zeihl Neelsen staining and later by culture which is the gold standard for diagnosis. In breast abscess like picture dominated by acute inflammatory exudates, AFB positivity or histological confirmation is mandatory to call the lesion tubercular.10

As a conclusion, tubercular mastitis is still an uncommon entity and awareness of the disease is important. Diagnosis depends on the combined picture of all the diagnostic tests as it presents in unusual forms and any one diagnostic modality may overcome the limitations of the others. Therefore, the specimen should be examined as widely as possible.

REFERENCES


Authors Contribution:
PA – Laboratory diagnosis of the case, designed and drafted the manuscript and reviewed; PK and SS – Clinical diagnosis and clinical procedures on the case.; MK, AM and MB – Review of clinical diagnosis and review of manuscript.; Special feature – the site of abscess makes this case report unique.

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