

BILATERAL TUBERCULOSIS OF AREOLA AND NIPPLE- A RARE CASE

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PRESENTATION OF CASE

A 25 yrs. young unmarried woman presented with pain, fever and discharge from nipple for last 7 yrs. There was no history of pulmonary tuberculosis, but 5 years back her brother suffered and was treated adequately for sputum positive pulmonary tuberculosis. Sputum AFB of the patient was negative with Mantoux test 36 mm induration with a BCG scar.

On physical examination, there were multiple healed scars present in both breasts around the nipple, both nipples were retracted. Greyish white thick, cheesy discharge was expressed from both the nipples and examined for AFB by ZN staining which was found to be Positive. Chest x-ray was normal.

CLINICAL DIAGNOSIS

Based on atypical history since 7 yrs, Endemicity and strong family history of TB, clinical diagnosis of tuberculosis of areola and nipple was made, further confirmed by ZN staining of nipple discharge which is positive for acid fast bacilli.

DIFFERENTIAL DIAGNOSIS

- Carcinoma of Breast
- Fatty Necrosis
- Plasma Cell Mastitis
- Peri Areolar Abscess
- Actinomycosis
- Blastomycosis

PATHOLOGICAL DISCUSSION

Tuberculosis of the breast may be primary or secondary. However, it is generally believed that the infection of the

breast is usually secondary to a tuberculosis focus elsewhere in the body, which may or may not be clinically apparent.

In most of cases histology contributes to diagnosis by identifying a granulomatous lesion with typical caseous necrosis. The Gold standard for diagnosis of TB is Ziehl Neelsen staining/culture, which is positive in our case.

Tuberculosis is the most widespread and persistent of the human infections in the world. It can involve any organ. But tuberculosis of the breast is a rare form of tuberculosis.^{1,2} The breast tissue is remarkably resistant to tuberculosis, as it fails to provide a conducive environment for the survival and multiplication of the tuberculosis bacilli, like the skeletal muscle and the spleen.³ Tuberculosis of the breast is an uncommon presentation of tuberculosis, even in the countries with a high incidence of pulmonary and extra pulmonary tuberculosis.^{4,5}

The incidence of tuberculosis of the breast varies from 1% of all the breast lesions in the industrialized countries to as high as 4% in the Indian subcontinent.^{4,5}

Breast tuberculosis commonly affects women in their reproductive ages.⁶ Another predisposing factor is lactation^{3,7} Tuberculosis of the male breast has rarely been reported in the literature.^{7,8} The high incidence of breast tuberculosis in certain areas has been linked to the prevalence of tuberculosis in the faucial tonsils of suckling infants.⁷ The most accepted route for the spread of tuberculosis to the breast was retrograde lymphatic extension from the axillary lymph nodes.⁶

Mc Even classified breast tuberculosis into five types, viz (i) Nodular tubercular mastitis, (ii) Disseminated or confluent tubercular mastitis, (iii) Sclerosing tubercular mastitis, (iv) Tuberculosis mastitis obliterans, and (v) Acute miliary tubercular mastitis.⁹ But at present, tuberculosis of the breast has been reclassified into nodular, disseminated and sclerosing. The nodular variant is often mistaken for a fibro adenoma or a carcinoma. The disseminated variety commonly leads to caseation and sinus formation. Sclerosing tuberculosis afflicts older women and it is slow growing, with the absence of suppuration.⁶

The most common presentation of tuberculosis of the breast is a lump, usually in the central or the upper outer quadrant of the breast, which may be sometimes be hard and irregular and which may mimic carcinoma.^{6,10,11} Other

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presentations include a lump with a sinus, multiple sinuses without a lump, breast abscess, and ulcer over the breast. Breast pain and constitutional symptoms help in differentiating tuberculosis from a carcinoma.⁶

Currently, most investigators agree that breast TB is eminently treatable without mutilating surgery.^{12,13} Surgical management may include drainage of abscess, biopsy from abscess wall, scraping of sinuses in the breast, excisional biopsy, segmentectomy and rarely simple mastectomy.^{14,15} Generally, an excision biopsy followed by a full course of anti-tuberculosis treatment is suitable for small lesions.¹⁵ Residual lump following anti-tuberculosis treatment may also be removed. Only rarely, simple mastectomy with or without axillary clearance is required for extensive disease comprising of large, painful ulcerated mass involving the entire breast and draining axillary lymph nodes rendering organ preservation impossible.¹⁵ Modified radical mastectomy is best avoided unless there is a coexisting malignancy.

Bilateral breast tuberculosis is rare, TB of areola and nipple being rarest. Bilateral involvement holds for only 3% of patients with breast tuberculosis. Patient is kept under DOTS and responded well to treatment. Tuberculosis of breast is an uncommon disease with non-specific clinical, radiological and histological findings. Still uncommon is TB of nipple and areola which are involved here.

Tuberculosis of the breast is a rare condition. Despite the use of modern imaging techniques and documented 'specific' findings, differentiation from other benign or malignant conditions can be difficult. Microbiological and histological examinations remain the gold standard for the diagnosis of this uncommon disease.



Figure 1. Chest X-Ray - Normal Study



Figure 2. Bilateral Breast- Showed Multiple Healed Scars with Inverted Nipple

ZN Staining of Nipple Discharge

ZN staining which was found to be Positive. nipple discharge sent for geneXpert MTB test, which is positive and showed sensitivity to R(RIFAMPIN).

So continued ATT for 6 months and patient responded well to treatment.

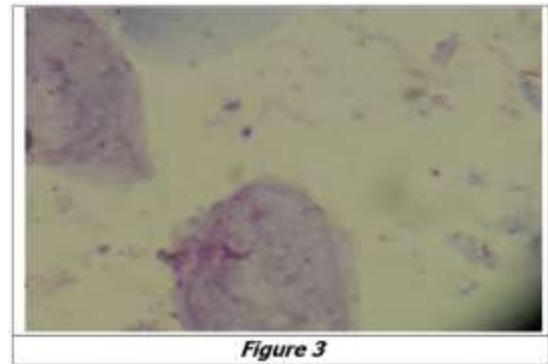


Figure 3

FINAL DIAGNOSIS

Bilateral tuberculosis of Nipple and Areola. This disease can present a diagnostic problem on radiological and microbiological investigations, and thus a high index of suspicion is needed. Incorporating a highly sensitive technique like PCR may be helpful in establishing the usefulness of such technology and can aid in conforming the diagnosis early. The disease is curable with antitubercular drugs, and surgery is rarely required.

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