Primary Tuberculosis of the Breast Presented as Multiple Discharge Sinuses

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Received: 13 August 2009 / Accepted: 11 October 2009 / Published online: 11 November 2012
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Abstract Breast tuberculosis is a rare form of tuberculosis (TB). It is mainly classified as primary and secondary forms. Primary form is rare. We are reporting a case of primary TB breast with history of breast lump and multiple sinuses. TB was diagnosed on FNAC. Patient was put on anti-tubercular drugs.

Keywords Extrapulmonary · Breast · Granulomatous infection · Sinuses · Tuberculosis

Introduction

Mammary tuberculosis (TB) is a rare form of extrapulmonary TB first described by Sir Astley Cooper in 1829 [1]. Although over one billion people suffer from TB worldwide, mammary tuberculosis is an extremely rare condition [2]. Its prevalence has been estimated to be 0.1 % of breast lesions examined histologically [3]. It is uncommon in India. Moreover, the disease is not diagnosed easily because of its physical similarity to carcinoma and bacterial abscesses [4, 5].

Case Report

A 35-year-old woman presented to us with a history of swelling in the left side of breast since 1 year. There was history of discharge from breast skin in multiple sites since 4–5 months with erythema/redness of skin since 15 days.

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On physical examination, multiple discharging sinuses were present. A firm, mobile, non-tender, central mass about 6×8 cm in size was noted in the left breast. Lump was diffuse in nature. Nipple retraction and nipple discharge were not present. Axillary lymph nodes were three in number and 2×3 cm in size of lateral group. Laboratory findings were within normal limits. CXR was normal. Fine needle aspiration cytology (FNAC) of the breast lump diagnosed it as granulomatous mastitis TB of breast. The FNAC of axillary nodes showed reactive hyperplasia.

She was put on a 6-month course of anti-tubercular drugs like rifampicin, isoniazid, ethambutol, and pyrazinamide for 2 months followed by rifampicin and isoniazid for another 4 months. There was healing of sinuses and a decrease in size of the lump (Fig. 1). There is no recurrence in follow-up since 1 year. Patient responded very well to conservative treatment.

Discussion

Breast tuberculosis is a rare entity and may be confused with carcinoma of the breast. Although its incidence ranges between 0.1 and 0.52 %, it increases in endemic region [6]. Granulomatous mastitis can occur between 0.025 and 3 % of all the breast diseases treated surgically [2, 7]. It is mainly classified as primary and secondary forms. Primary form is quite rare [8]. It can spread by three routes: hematogenous, lymphatic, or direct spread. Breast infection is seen more frequently secondary to a tubercular focus from the lungs, pleura, or lymph nodes which may not be detected radiology or clinically [9]. In our case, breast tuberculosis was the primary focus because there was no evidence of another tuberculosis focus on physical or radiological examination nor there was prior history of tuberculosis.

The commonest location of the lump is the central or upper outer quadrant of the breast. The mass may be

Fig. 1 Photograph of the left side of the breast showing healed multiple sinuses

fluctuant and is usually covered with indurated tissue. It is usually fixed to the skin and fistulization is not uncommon. Nipple and skin retraction can also occur, but breast discharge and pain are not common. Breast tuberculosis is classified into three types on mammography as nodular, disseminated, and sclerosing type. The nodular form is the commonest [9]. According to radiological findings, nodular pattern can be mistaken for fibroadenoma or carcinoma. Lesions due to tuberculosis have no specific ultrasonographic findings. They may be heterogeneous, hypoechoic, and irregularly bordered mass with internal echoes or thick-walled cystic lesions on ultrasonography [8]. In some cases, there may be fistula and thickening of Cooper's ligaments and subcutaneous tissues. FNAC is an important diagnostic tool to diagnose breast tuberculosis. Khanna reported a success rate of 100 % in his series. Imaging modalities like mammography or ultrasonography are of limited value as the findings are often indistinguishable from breast carcinoma [9]. TB breast abscess can be diagnosed on mammography as a dense sinus tract connecting

an ill-defined breast mass with a localized skin thickening, but Khanna reported these findings in less number of cases [2]. Mountex test is usually positive in adults in endemic areas of tuberculosis, but is not diagnostic.

Conclusion

TB of the breast is an uncommon condition and it can be diagnosed on clinicopathologic basis. Patient with breast lump should undergo proper investigation especially to rule out primary or secondary TB.

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