Case Report

A Case of Primary Tubercular Mastitis Masquerading as Carcinoma Breast

Sameer Singhal

Department of Pulmonary Medicine, Jawaharlal Nehru Medical College, Sawangi (M), Wardha, Maharashtra 442004, India

Correspondence should be addressed to Sameer Singhal, singhal.sameer@yahoo.co.in

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Primary extrapulmonary tuberculosis occurring in the breast is extremely rare. In the absence of well-defined clinical features, the true nature of the disease remains obscure and it is often mistaken for carcinoma or pyogenic breast abscess. It also presents a diagnostic problem on radiological and microbiological investigations and thus high index of suspicion acquires an important position. This paper highlights the importance of considering every breast lump as a potential case of tubercular mastitis especially in endemic countries like India that should be subjected to fine needle aspiration cytology or excisional biopsy before considering surgical options like complete mastectomy, without relying only on clinicoradiological findings.

1. Introduction

Breast tuberculosis is a rare form of tuberculosis [1, 2]. The disease is often overlooked and misdiagnosed as carcinoma or pyogenic abscess [3]. Reports on breast tuberculosis from India have been few. Less than 100 cases of breast tuberculosis were reported from India till 1987 [4]. Here we want to report a case of breast lump suspected to be a case of carcinoma clinicoradiologically but proved to be case of tuberculosis histopathologically with excellent remission on antitubercular treatment.

2. Case Report

A 28-year-old, married, nonlactating woman presented with history of lump in left breast of 1-year duration, which has suddenly increased in size in last one month and associated with pricking pain and nonradiating being not related to menstrual cycle. There was associated swelling in left axilla for about 1 month, not associated with pain. There was no history of cough, fever, loss of appetite, loss of weight, or hemoptysis. No family history of tuberculosis, carcinoma breast was present. Patient was not on hormone replacement therapy or oral contraceptive pills. On examination,

the patient was of average build and nutrition with an enlarged lymph node in anterior and apical group of left axillary region, two in number, the largest measuring 2×2 cm, nontender, mobile, firm in consistency, and non discharging in nature. On local examination, there was single tender hard lump situated in upper outer quadrant of left breast which measured 5×6 cm and not fixed to skin, underlying muscle, or chest wall with left-sided nipple raised. The right breast, right axilla, and supraclavicular fossa were normal. The other systems showed no abnormalities. Investigations revealed normal blood count except ESR 36 mm in first hour, liver function and kidney function tests were normal. Elisa for HIV1 and 2 was negative. Chest radiograph PA view was normal (see Figure 1). Mantoux was 14 mm after 48 hours. Ultrasound of left breast showed diffuse lobulated heterogeneous lesion suggestive of malignant lesion. Clinical diagnosis of carcinoma breast was suspected on the above findings. Fine needle aspiration cytology of left breast lump and axillary node was done which revealed chronic nonspecific granulomatous lesion with no malignant cells being seen. A diagnosis of chronic granulomatous mastitis was then made, and the patient was subjected to lumpectomy of left breast under general anaesthesia. Section from breast lump sent for histopathological examination showed features

FIGURE 1: Normal chest radiograph.

FIGURE 2: Photograph showing noncaseating epithelioid cell granuloma with langhans type giant cell suggestive of tuberculous inflammation of breast (H & E, 40x).

suggestive of tubercular granuloma (see Figure 2). The patient was started on antitubercular treatment with category I regimen comprising of four drugs, that is, Rifampicin, Isoniazid, Ethambutol, and Pyrazinamide thrice weekly for two months followed by Rifampicin and Isoniazid thrice weekly for four months as per the Revised National Tuberculosis Control Programme Guidelines (RNTCP). The patient showed marked improvement with complete resolution of axillary node and excellent remission of breast tissue at the end of two months.

3. Discussion

The first case of mammary tuberculosis was recorded by Sir Astley Cooper in 1829 who called it “scrofulous swelling of the bosom” [5]. The low incidence is due to high resistance offered by breast tissue to survival and multiplication of tubercular bacillus [6]. The breast may become infected in a variety of ways [7], for example, (i) haematogenous, (ii) lymphatic, (iii) spread from contiguous structures, (iv) direct inoculation, and (v) ductal infection. Of these,

the most accepted view for spread of infection is centripetal lymphatic spread [6]. The likely portal of entry in reported case is retrograde spread from axillary lymph nodes. Breast tuberculosis most commonly presents as a lump in the central or upper outer quadrant of the breast [8]. The lump is often indistinguishable from carcinoma breast being irregular, hard, and at some times, fixed to either skin, muscle, or even chest wall [9] as in the previous case. The risk factors considered associated with tubercular mastitis are multiparity, lactation, trauma, past history of suppurative mastitis, and AIDS [10]. Diagnosis is ideally by bacteriological confirmation from breast tissue by Ziehl Neelsen stain or mycobacterial culture. However, the bacilli are isolated in only 25% of cases therefore demonstration of caseating granuloma from breast tissue by doing excision biopsy is sufficient for diagnosis. Treatment is medical, consisting of antitubercular therapy as per RNTCP Guidelines. Simple mastectomy is required in rare case of failure of antitubercular treatment or large ulcerative lesion involving entire breast.

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