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CASE REPORT - 2

Title : Primary Tuberculosis of the male breast

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Abstract-

Primary tuberculosis of the breast is a rare clinical entity, often mimicking breast cancer or abscesses. It usually occurs in females of reproductive age. We report a 60 years old male who presented with a painful right breast mass for two months. Physical examination revealed a tender mass in the lower outer quadrant of the right breast. FNAC failed to achieve specific diagnosis before surgery. A surgical procedure was planned and the histopathological evaluation of the specimen revealed findings consistent with mammary tuberculosis. Primary mammary tuberculosis should be considered in the differential diagnosis of breast tumors.

Key word : Male Breast, tuberculosis, malignancies.

Introduction : Mammary tuberculosis is a rare clinical entity, often mimicking breast cancer or abscesses of benign or malignant origin. While mammary tuberculosis is globally reported to account for less than 0.1% of all known breast diseases, it is reported in developing countries to comprise up to 3% of treatable breast lesions[1,2,3,4].

The breast can be the primary site but more commonly secondary that spreads to the breast through the lymphatic system from axillary, mediastinal or cervical lymph nodes, or directly from underlying structures such as the ribs .

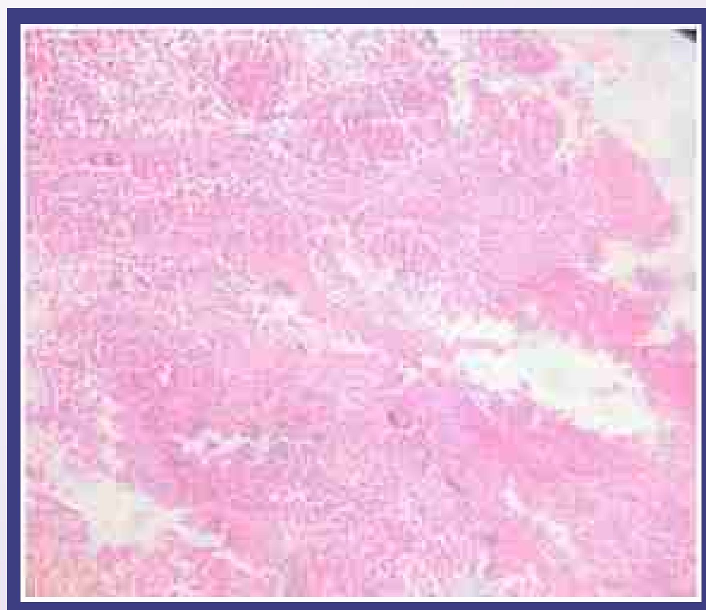
In the literature, radiological features of breast tuberculosis were presented in only a few reports [5,6,7,8,9,10].

This paper reports a rare case of primary tuberculosis of the breast mimicking abscesses that was confirmed by microbiological and histopathological examination.

Case Report : A 60 years old male presented to surgery department with history of a painful right breast mass for two months. The man was afebrile and there was no prominent history of fever or respiratory symptom. In physical examination, he had a tender mass, 2X1X1cm diameter in lower outer quadrant of right breast. There was no nipple discharge or skin retraction. There was no axillary or cervical lymphadenopathy. Examination of abdomen revealed no evidence of any intra abdominal lump or ascites.

Routine hematological clinical tests were done. WBC count was 8400 with polymorphs 54% lymphocytes 42%. Right breast ultrasound revealed an ill defined, hypo echoic, heterogeneous lesion resembling abscess formation, measuring 19X13X12mm in size and located in lower outer quadrant of the right breast. Mammography revealed gynaecomastia with abscess formation. FNAC was done and revealed inflammatory cells with purulent material. Consequently a surgical procedure with an excision of the collection was planned and specimen was sent for histopathological examination.

The histopathological evaluation of the specimen revealed findings consistent with mammary tuberculosis which is granulomas with epitheliod histiocytes, Langhan's giant cells, and an intense lymphocytic infiltration at the periphery of granulomas.



A.Fig- 1. Low power view (10X)

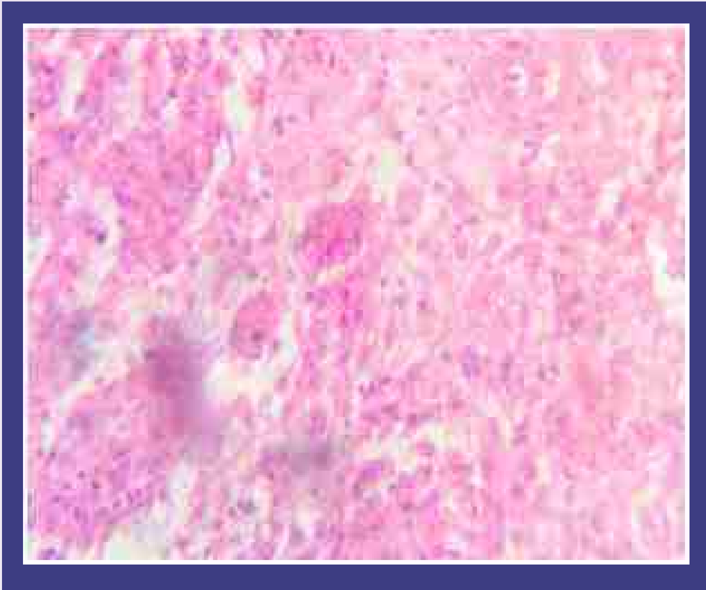


Fig-2 :High power view(40X) - Microphotograph showing granuloma of tuberculosis

The result of pus culture was positive for acid fast bacilli.

Plain film chest radiography and high resolution computed tomography of the chest were found to be normal.

Sputum examination was negative for mycobacterium tuberculosis.

After confirmation of diagnosis, the patient started anti tuberculosis therapy consisting of rifampcin, isoniazid, pyrazinamide, and ethambutol for two months and followed by rifampicin, and isoniazid for in additional four months.

Discussion : Breast tuberculosis is a rare clinical entity with incidence ranging from 0.1% in developed countries, to 0.3%-5% in endemic regions[11]. The disease is more frequently seen in women between 20 and 50 years of age, especially among multiparous and lactating females where the breast is more sensitive to infection and trauma [12].

The clinical signs of mammary tuberculosis can be insidious and nonspecific and often simulate signs of breast carcinoma. Mammary tuberculosis usually affect young, multiparous, lactating women although it may also be seen in males in 4.5% of cases[13].

Breast involvement can be either primary without any extra-mammary focus, or secondary to pulmonary tuberculosis. The primary form of the disease is rare and probably occurs via infection through skin abrasions or through openings of the lacrimal ducts at the nipple. The secondary variety is more common and develops by either direct extension, retrograde lymphatic dissemination from the affected axillary, cervical lymph nodes or rarely from pulmonary diseases[14].

Clinical presentation of mammary tuberculosis is extremely variable, often presenting as round nodular lumps mainly in the upper outer quadrant of the breast[15].

Our patient did not have any focus of tuberculosis outside the breast, both on physical and radiological examination, and it may be considered to be primary form. The breast lesion can be classified into nodular, disseminated or sclerosing pattern. The principal clinical manifestation is the nodular form, which predominant in elderly patients and both clinically and radiological mimics carcinoma. In younger patients , the disease usually present as a pyogenic breast abscess[16].

Mammography and ultrasonography are unreliable in differentiating mammary tuberculosis from carcinoma[5]. Fine-needle aspiration cytology can be diagnostic in about three-fourth of patients with appearance of epitheloid granulomas or langhan's giant cells.

Our patient had ultra sonogaphy features of abscesses; US-guided aspiration was done. In our reported case surgical excision was indicated because of indeterminate diagnosis after pre-operative diagnostic procedure.

Histolopathogical and microbiological examination confirmed the diagnosis of breast . As the patients did not have any other focus, the diagnosis was primary tuberculosis of the breast.

Conclusion : Mammary tuberculosis should be considered in the differential diagnosis of any case of a painful breast mass, mastitis, or breast abscess . Its recognition and differentiation from breast cancer is particularly important . Physical examination , USG and CT are helpful diagnostic tools on this process. Accurate and final diagnosis should be confirmed by histopathological examination.

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