J. Dhaka National Med. Coll. Hos. 2017; 23 (01): 37-39

Original Article

Tuberculous Mastitis- A Outpatient department based study in Dhaka National Medical College Hospital

Shamima Jahan[1], Munir Hassan[2]

[1]Associate Professor, Department of Surgery, Unit III, Dhaka National Medical College Hospital, [2] Professor, Department of Microbiology, Dhaka National Medical College Hospital

Abstract:

Background: Tuberculous mastitis is a diagnostic dilema because of its variable presentations.

Introduction: Tuberculous mastitis is a chronic granulomatous infection that affect female breast though it can affect any human organ except cardiac muscle.

Material & Method: It is a retrospective study starting from July'2010 in Breast and Anal clinic to Fast track service to July'2016. This study includes 28 women (n=28) who were at direct observation & follow-up throughout the treatment period. Youngest person of this series is 20 years of age and the eldest one is 40 (Mean age-29.2). Most patients were from low economy group. The aim is to observe the diversity of presentation & management in Tuberculous mastitis.

Result: Presentations are widely variable ranging from breast lump of different sizes, single or multiple breast abscess and chronic discharging sinus. 27 person have pathology in their left breast. Only one patient was diabetic. For evaluation, all routine investigation including X-ray of Dorsal spine was done but attention was given to tissue diagnosis by either Fine Needle Aspiration Cytology or Biopsy taking as Out Patient Department case for histo-pathological examination. After confirmation of diagnosis, anti-TB drug started through Directly Observed Treatment centre. Weekly follow-up was advised to those patients who needed wound care as well as daily dressing. 12 month anti- TB drug was given to all patient & all of them recovered commonly leaving behind few scars in their breast.

Discussion: Extra-Pulmonary Tuberculosis is a gradually increasing chronic infectious disease in low economy patients. Limitation of this study is irregular medication and follow-up as well as drop out after starting management though Directly Observed Treatment centre is of great help.

Conclusion: The entire situation may be better controlled by increasing awareness among the people and improving living standard.

Introduction

Tuberculosis is the most widespread and persistent human infection in the world. Tuberculous mastitis is a chronic granulomatous infection that effects the female breast but is less common among the extra-pulmonary Tuberculous infections.

Tuberculous mastitis accounts for less than 4% Tuberculous infection in South East Asia.[1,2]

Sir Astley Cooper reported the first case of Tuberculous mastitis in 1829 and called it 'Scrofulous swelling of the bosom.[3] Tuberculous mastitis may be a part of systemic disease or may be only manifestation of tuberculosis. It occurs frequently in female at reproductive age and is uncommon in pre-pubertal and elderly woman. This could be because of female breast undergo frequent changes during the period of child bearing activity and is more susceptible to trauma and infection. Thus the risk factors for Tuberculous mastitis include multiparity, lactation, trauma, and past history of suppurative mastitis.[4,5] Sometimes it is difficult to differentiate from Carcinoma Breast which may co-exist.[6,7]

Material & Method

It is a retrospective study starting from July'2010 in Breast and Anal clinic to Fast track service to July'2016. This study includes 28 women (n=28) who were at direct observation & follow-up throughout the treatment period. Youngest person of this series is 20 yrs of age and the eldest one is 40 (Mean age-29.2). Most patients were from low economy group.

Inclusion criteria

Affected women who were registered at Directly Observed Treatment (DOT) centre, and were at regular follow-up.

Exclusion criteria

Patients who were irregular at DOT centre and medication.

Aim of this study

To observe the incidence of Tuberculous mastitis in the community and to observe the diversity of presentation of this patients.

Results

All of them were female at reproductive age with regular menstrual cycle. All of them were married and multiparious. From history and physical examination, variable informations were received. One patient was Diabetic and controlled by Endocrinology dept. of DNMCH.

Table-1: Effected Age group (n-28)

20-30 yrs	30-40 yrs
4	24

Most of the diseased patients were from middle age group.

Table-2: Mode of presentation (n-28)

Lump	Single/multiple abscess	Discharging Sinus
12	15	1

Most of the patient presented with cold abscess.

Table-3: Systemic symptoms (Evening pyrexia, weight loss, Anorexia) {n-28}

Present	Absent
16	12

Common systemic symptoms associated with Tuberculosis were present in 16 patients.

Table-4: Palpable ipsilateral axillary lymph nodes (n-28)

Lymph node palpable	Lymph node not palpable
16	12

More than 57% patient had ipsilateral palpable lymph nodes.

Table-5: Investigation protocol: n-28

A. Complete blood count:

Normal CBC	20 patients	Lymphocytosis with high ESR	08 patients

B. Mantoux Test

+Ve	10 patients	-Ve	18 patients

C. Sputum for AFB - negative in all patients

D. Chest X-ray (P/A view) & X-ray dorsal spine was normal in all patient.

E. Biopsy (tuberculous granuloma)

FNAC+Ve	12	Incision Biopsy	15	Excision Biopsy	01

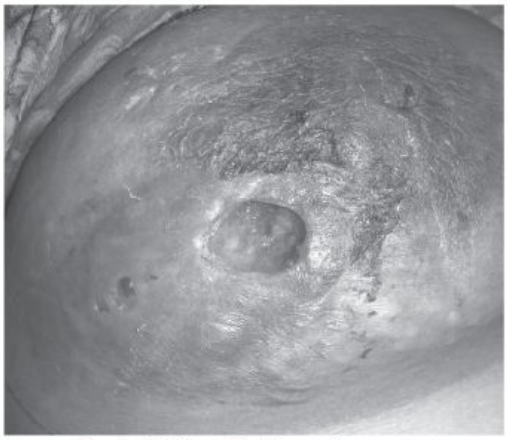
F. Imaging (USG of breast & axilla)

Hypoechoic breast mass.	28	Axillary lymphadenopathy	12

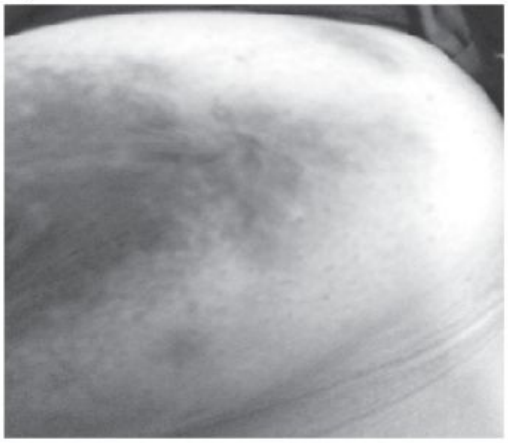
Treatment protocol-Tuberculous mastitis.

16 patients who presented with Cold abscess/ Discharging sinus needed surgical intervention under Anti-tuberculous chemotherapy and required intense follow-up in the initial 2-monthes. All patient received one year uninterrupted anti Tuberculous chemotherapy from DOT centre, at the end of which all patient were checked physically. Investigations such as hematology and imaging were done.

Before Anti-TB drugs



1 year after Anti-TB medication and wound care.



Discussion

Tuberculous mastitis has been classified in five pathological varietes.[8]

1. Nodular form.
2. Diffuse or disseminated form (most common).
3. Sclerosing form-extensive fibrosis rather than caseation. Thus the entire breast is hard with nipple inversion.
4. Tuberculous mastitis obliterens-characterized by periductal fibrosis-resembling fibrocystic disease.
5. Acute milliary tuberculous mastitis, occur as a part of milliary tuberculosis.

Over the last two decades, the last two are very rare, while tuberculous breast abscess is more frequent. Routes of infection most commonly from contiguous seeding or via lymphatic and haematogenous route. Direct inoculation through abrasions of the nipple is rare.[2]

Common clinical presentation is solitary ill-defined unilateral breast lesion. Multiple and bilateral lesion is uncommon.[2,7] These lesions may progress to a cold abscess to Tuberculous ulcer with or without sinus formation. 1/3rd of the patients present with pain associated with lump and while another 1/3rd have ipsilateral axillary lymph node involvement.[9]

Ultrasonography, Mammography, CT scan/ MRI are used as regular diagnostic work-up for abscess and sinus tract.[9]

Gold standard for diagnosis of Tuberculous mastitis is demonstration of caseating granuloma from breast tissue and / or lymph node by FNAC or Core biopsy. Bacteriological culture or Ziehl-Neelsen (Z-N stain) stain can rarely identify the bacilli (25% & 12% respectively). Core biopsy/ Excision biopsy is strongly advocated to distinguish from Sarcoidosis and Idiopathic granulomatous mastitis.[10]

Medical therapy is the main stay of therapy with anti-TB drugs. Infection with multidrug resistant strain may require 1st and 2nd line drug combinations like Ofloxacin, Ethionamide or Para amino salicylic acid. Surgical intervention is rarely required (14%) where there is lack of response to drugs, cold abscess or sinus.[9]

Conclusion

Tuberculous Mastitis is a relatively rare cause of chronic mastitis but may cause a diagnostic dilemma for its variable presentation. Careful assessment for diagnosis followed by adequate treatment and follow-up can control this disease in the community.

References

1. Tse GM, Poon CS, Ramachandram K, Ma TK, Pong LM, Law BK et al. Granulomatous mastitis: A clinicopathological review of 26 cases, Pathology, 2004; 36:254-7.[PubMed]
2. Baheroon S, Tuberculosis of the breast. An Thoracic Med 2008; July-sept 3(3): 110-114.
3. Cooper A. Illustration of the diseases of the breast. In; Longmans Orme, Brown, Green editors, Part-I, London:1829, p.7.
4. Jalali U, Rasul S, Khan A, Brig. N, Khan A, Akhter R. Tuberculous Mastitis. J coll. Physicians Surg. Pak. 2005; 15: 234-7. [Pub Med]
5. O' Railly M, Patel KR, Cummin R. Tuberculosis of the breast presenting as carcinoma. Mil Med. 2000; 165:800-2.[PubMed]
6. Fujii T, Kimara M, Yanagita Y, Koida T, Kuwano H, Tuberculosis of axillary lymph nodes with Primary breast cancer. Breast cancer.2003; 10: 175-8 [Pub Med]
7. Graunsman RI, Goldman ML. Tuberculosis of breast- reports of 9 cases including 2 cases of coexisting carcinoma and Tuberculosis. Am J Surg.. 1945; 67:48.
8. Mc keown KC, Wilkinson KW. Tuberculosis of the breast. Br. J. Surgery 1952; 39: 420-9[Pub Med]
9. Tewari M, Shukla HS, Breast tuberculosis: Diagnosis, clinical features and management. Indian J Med Res.2005; 122: 103-10[Pub Med]
10. Gupta D, Rajwanshi A, Gupta SK, Nijhawan R. FNAC in the diagnosis of Tuberculous Mastitis. Acta cytol 1999; 43:193-4[Pub Med]