Tubercular Mastitis Mimicking Carcinoma of Breast - A Case Report

Mohd Athar[1], Himanshu Singh[2], Kumar Vineet[3]

[1, 2, 3] Department of General Surgery, GSVM Medical College, Kanpur, Uttar Pradesh, India.

INTRODUCTION

Tuberculosis is quite prevalent in developing countries. It can affect any organ in the human body. Apart from pulmonary tuberculosis, it does not usually present with its constitutional symptoms in other organs. On many occasions, tuberculosis of organs other than pulmonary Koch's is misdiagnosed. One such organ is breast. Tuberculosis of breast is a rare condition and its presentation as that of breast cancer heaps further misery. A case of tubercular mastitis diagnosed initially as metastatic breast cancer is presented here. Patient was managed conservatively.

PRESENTATION OF CASE

A 35-year-old married woman presented to us with chief complaint of right sided breast lump for 3 months and distension of abdomen for 2 months. (Figure 1) Breast lump was irregular and well defined, non-tender involving upper outer and lower outer quadrants of breast along with axillary lymphadenopathy. Ipsilateral lymph nodes were firm, discrete and more than a cm in size. There was no contra lateral lymphadenopathy. Patient also gave history of weight loss. Distension of abdomen had increased significantly in girth as compared to when it was first perceived by the patient. Patient had history of loss of appetite for the last 2 months along with difficulty in breathing. There was no menstrual irregularity. Patient had regular bowel movements. Patient's build was lean and thin with distended abdomen. No icterus, pallor was present. Patient's vitals were stable. On breast examination, right breast was found to be non-tender along with non-movable swelling. Skin had no ulceration or satellite nodule. On per abdomen examination, it was soft, distended and non-tender. On percussion, dull and tympanic notes were present along with presence of fluid thrill.

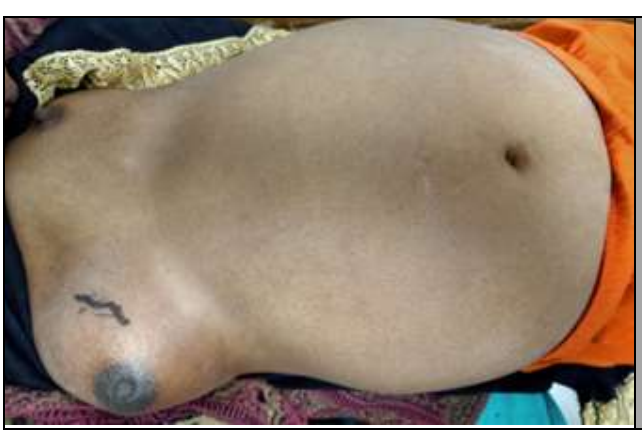

Figure 1. Case of Right Sided Mastitis with Ascites

Corresponding Author:
Dr. Kumar Vineet,
Department of General Surgery,
LLR Hospital, Kanpur,
Uttar Pradesh, India.
E-mail: likho2vineet@gmail.com

DOI: 10.18410/jebmh/2021/251

How to Cite This Article:
Athar M, Singh H, Vineet K. Tubercular mastitis mimicking carcinoma of breast - a case report J Evid Based Med Healthc 2020;8(18):1319-1321. DOI: 10.18410/jebmh/2021/251

Submission 18-01-2021,
Peer Review 28-01-2021,
Acceptance 19-03-2021,
Published 03-05-2021.

INVESTIGATIONS

Routine investigations were ordered, and total leukocyte count (TLC) was found to be increased along with increased percentage of lymphocytes. Ultrasonography revealed evidence of gross ascites with low level internal echoes. Further, ascitic tap was done and fluid sent for malignant cell examination. It showed evidence of mononuclear cells predominantly lymphocytes, plasma cells, histiocytes and epithelioid cells attempting to form vague granuloma at places. Few multinucleated giant cells and foamy macrophages were also seen. It was suggestive of exudate–tubercular in nature. (Figure 2)

Cytology report of right breast lump showed multiple epithelioid granulomata enmeshed within fibrous tissue with haemorrhagic background. Smears had abundance of mixed inflammatory infiltrate predominantly lymphocytes, plasma cells, foamy macrophages and epithelioid cells in the background of thick caseous necrotic material along with abundance of polymorphonuclear cells suggestive of chronic granulomatous mastitis–tubercular type. (Figure 3) Above history, examination and investigations lead to diagnosis of tubercular mastitis secondary to abdominal tuberculosis.

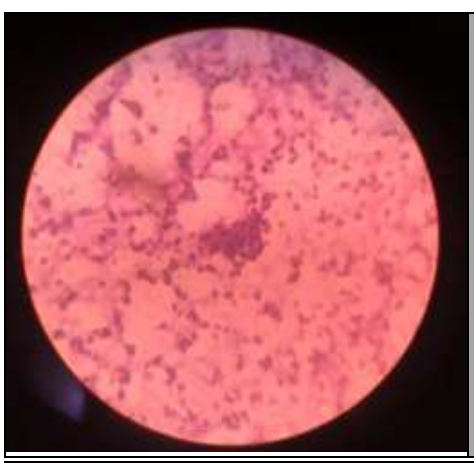

Figure 2. Ascitic Fluid – Tubercular in Nature

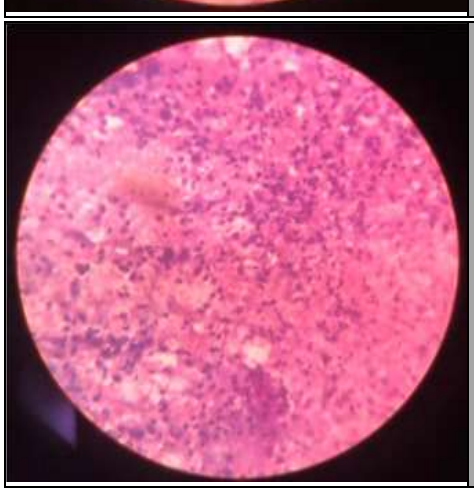

Figure 3. FNAC of Right Breast Suggestive of Tubercular Mastitis

DISCUSSION

Tubercular mastitis has very low incidence. Its overall incidence is 0.1 % in all the breast diseases. Among operative breast diseases, its incidence is 3 % in Indian subcontinent.[1] Constitutional symptoms of tuberculosis is present in only 21 % of patients along with associated pulmonary tuberculosis in only 10 % patients.[1] It can present as pyogenic breast abscess or can present as breast carcinoma.[2] It is seen in reproductive age group patients, mostly in lactating females.[3] Both breasts are reported to be involved with equal frequency. Symptoms are mostly for less than a year. Breast lump is the most common presenting symptom. Clinical diagnosis is difficult in most cases. Nipple and areola are rarely involved. Pain is more frequent than a carcinoma. Skin fixation is frequent. Enlargement of regional lymph nodes is seen. Since it is often indistinguishable from carcinoma, mammography is of no use.[4]

Initially, it was believed that breast tuberculosis is primary but now evidences suggest that it is mostly secondary in nature and primary lesion lies anywhere else in the body. Lymphatic spread from a pulmonary focus is a possibility. Similarly, haematogenous spread from other body parts can also take place. Direct trauma of lactating duct or nipple can also give rise to tubercular mastitis.[5]

McKeon[6] classified breast tuberculosis into:

1. Acute miliary type
2. Nodular type – the most common type
3. Disseminated type – involving the entire breast with multiple sinuses;
4. Sclerosing type
5. Tuberculous mastitis obliterans

Acid fast bacilli demonstration is difficult. Caseating granuloma along with Langerhans giant cells is usually used for diagnosis of the disease. 73 % of breast TB cases can be confidently diagnosed with FNAC.[7] Fine needle aspiration cytology is now the first choice to diagnose tubercular mastitis. Tubercular ascites is usually the presentation of abdominal tuberculosis. In ascitic fluid of the patients with tubercular ascites, cell count is between 500 and 1500 cells / mm^3 and cells are predominantly lymphocytes. USG abdomen is better in modality than CT abdomen in revealing fine, mobile septations characteristic of tubercular ascites, while CT highlights the peritoneal, omental or mesenteric involvement.[8]

CLINICAL DIAGNOSIS

Since, advanced breast cancer can have peritoneal ascites after involvement of liver, patient was clinically diagnosed as a case of carcinoma breast with metastasis in first visit to our side. But after investigations revealed tuberculosis, diagnosis of case was confirmed as tubercular mastitis with primary tuberculosis of abdomen. Patient was managed conservatively for the above condition. She was kept on Anti tubercular treatment (ATT) for the required duration and has shown significant improvement in the follow up visits.

CONCLUSIONS

Tubercular mastitis is a rare disorder. Its usual presentation mimics breast cancer. Complete and thorough investigations

can only differentiate both entities. Cytology is the main investigation to diagnose it. Tubercular mastitis needs to be kept as a distant differential diagnosis of carcinoma of breast especially in Indian scenario where tuberculosis is quite prevalent.

Financial or other competing interests: None.
Disclosure forms provided by the authors are available with the full text of this article at jebmh.com.

REFERENCES

[1] Khanna R, Prasanna GV, Gupta P, et al. Mammary tuberculosis: report on 52 cases. Postgrad Med J 2002;78(921):422-424.
[2] Gon S, Bhattacharyya A, Majumdar B, et al. Tubercular mastitis - a great masquerader. Turk Patoloji Derg 2013;29(1):61-63.
[3] Tewari M, Shukla HS. Breast tuberculosis: diagnosis, clinical features & management. Indian J Med Res 2005;122(2):103-110.
[4] Al Soub H, Chacko K. Tuberculous mastitis: a rare disease. Br J Clin Pract 1996;50(1):50-51.
[5] Banerjee SN, Ananthakrishnan N, Mehta RB, et al. Tuberculous mastitis: a continuing problem. World J Surg 1987;11(1):105-109.
[6] Mckeown KC, Wilkinson KW. Tuberculous disease of the breast. Br J Surg 1952;39(157):420.
[7] Kakkar S, Kapila K, Singh MK, et al. Tuberculosis of the breast. A cytomorphologic study. Acta Cytol 2000;44(3):292-296.
[8] Sanai FM, Bzeizi KI. Systematic review: tuberculous peritonitis-presenting features, diagnostic strategies and treatment. Aliment Pharmacol Ther 2005;22(8):685-700.