



## A Rare Case of Breast Tuberculosis

Author

**Shubhi Bhatnagar**

Department of Surgery, Dr. D.Y. Patil Medical College, Pune, Maharashtra, India-411018

Corresponding Author

**Shubhi Bhatnagar**

B-66, Old Girls' Hostel, Dr. D.Y. Patil Medical College, Pune, Maharashtra, India-411018

Phone No- 9000171777, Email: [shubhibhatnagar1@gmail.com](mailto:shubhibhatnagar1@gmail.com)

### Abstract

*Pulmonary tuberculosis is one of the most widespread and persistent human infections in the world. Breast tuberculosis is an uncommon disease, with an incidence of less than 0.1% of all breast lesions in Western countries and 4% of all breast lesions in endemic countries. We report a case of a 25 year old lady with breast tuberculosis in her left breast. Ultrasonography of the breast and fine needle aspiration cytology of the breast lump confirmed the diagnosis. She was put on a 6-month course of anti-tubercular therapy. The lump size was decreased within 3 months of follow-up and the patient remained asymptomatic. She was advised to continue treatment. Tuberculosis of breast should also be kept in mind as a differential diagnosis in cases of breast abscess.*

**Keywords:** breast tuberculosis, breast abscess, tuberculosis.

### Introduction

Tuberculosis (T.B) is one of the most widespread and persistent human infections in the world. The infection can involve any organ and mimic other illness. Tuberculosis of the breast is an uncommon presentation of tuberculosis.<sup>1</sup>

Most commonly, the disease presents as a lump in the central or upper-outer quadrant of the breast, while multiple lumps appear less frequently.<sup>2</sup>

There are three clinical varieties of mammary TB - namely, nodular, sclerosing, and disseminated.<sup>3</sup>

### Case Report

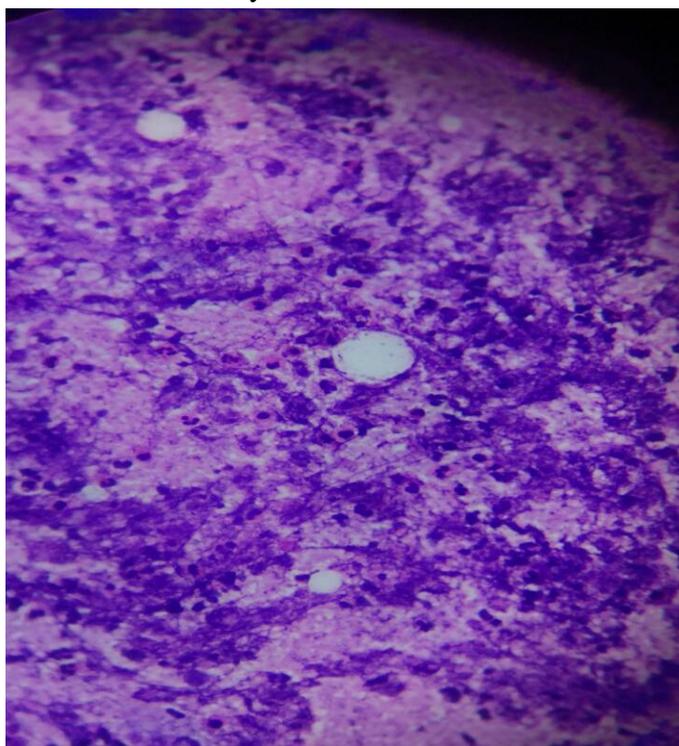
A 25 year old female patient presented with a lump in her left breast since 2 months. History of fever with chills was present since 4 days. There

was no history of significant weight loss. There was no family history of tuberculosis. On examination, a 3\* 2 cm lump was present in the upper, outer quadrant of the left breast. There was no local rise of temperature and lump was non tender. It was firm in consistency, mobile and had ill defined margins. There were no clinical manifestations of the disease to the nipple-areolar area, or signs of nipple discharge.

Ultrasonography of the left breast reported a solid, 3 cm lesion, with an ill-defined border posteriorly, located in the upper-outer quadrant of the left breast.

On chest x-ray, calcified pleural plaques were present and both costophrenic angles were blunt.

Fine needle aspiration cytology (FNAC) of the lump showed granulomas, epithelioid cells, and mixed inflammatory cells.



**Figure 1:** FNAC showing granulomas and epithelioid cells.

Background consisted of necrotic material and ZN stain for acid fast bacilli (AFB) was positive in the FNAC of the lump.

She was put on a 6-month course of anti-tubercular therapy with a 2 month intensive phase of rifampicin, isoniazid, ethambutol, and pyrazinamide followed by a consolidation phase of rifampicin and isoniazid for another 4 months.

The lump size was decreased within 3 months of follow-up and the patient remained asymptomatic. She was advised to continue treatment.

### Discussion

Breast TB is an uncommon disease, with an incidence of less than 0.1% of all breast lesions in Western countries and 4% of all breast lesions in TB endemic countries.<sup>4</sup>

Tewari and Shukla recently classified mammary TB into three categories (a) nodulocaseous tubercular mastitis, (b) disseminated/confluent tubercular mastitis, and (c) tubercular breast abscess.<sup>4</sup>

Fine needle aspiration (FNAC) is the most widely used initial invasive method for diagnosis of breast tuberculosis. Approximately 73% of the cases of TM can be diagnosed on FNAC when both epithelioid cell granulomas and necrosis are present.<sup>5</sup>

Medical therapy is the mainstay of therapy with antituberculous therapy (ATT). No specific guidelines are available for chemotherapy of breast tuberculosis, and therapy generally follows guidelines used for pulmonary tuberculosis. Success rate of medical therapy approaches 95% in most series with 6 months of antituberculous therapy (2 months of Isoniazid, Rifampicin, Pyrazinamide, and Ethambutol/4 months of Isoniazid and Rifampicin).<sup>6</sup>

Therapy with combination of first-line and second-line drugs that include kanamycin, ofloxacin, ethionamide, para-amino salicylic acid (PAS), pyrazinamide, and isoniazid has to be used.<sup>7</sup>

Surgical intervention was needed in up to 14% of the patients in some series, either due to lack of response to chemotherapy or large painful ulcerative lesions involving the entire breast. Drainage of cold abscess in the axilla and breast to prevent sinus formation is mandatory. Axillary dissection may be required in patients with large ulcerated nodes.<sup>8</sup>

### Conclusion

T.B of breast should also be kept in mind as a differential diagnosis in cases of breast abscess. Though pulmonary T.B remains a common condition in endemic areas, breast T.B is rarely seen.

**Sources of support-** None

### References

1. Harris SH, Khan MA, Khan R, Haque F, Syed A, Ansari MM. Mammary tuberculosis: Analysis of thirty-eight patients. ANZ J Surg. 2006;76:234–7.
2. Maroulis I, Spyropoulos C., Zolota V., Tzorakoleftherakis E. Mammary

- tuberculosis mimicking breast cancer: a case report. *Journal of Medicine Case Reports*. 2008;2:34.
3. Hamit HF, Ragsdale TH. Mammary tuberculosis. *J Roy Soc Med* 1982;75:764-5
  4. Tewari M, Shukla HS. Breast tuberculosis: Diagnosis, clinical features, and management. *Indian J Med Res*. 2005;122:103–10.
  5. Kakkar S, Kapila K, Singh MK, Verma K. Tuberculosis of the breast: A cytomorphologic study. *Ada Cytol*. 2000;44:292–6
  6. Shinde SR, Chandawarkar RY, Deshmukh SP. Tuberculosis of the breast masquerading as carcinoma: A study of 100 patients. *World J Surg*. 1995;19:379–81.
  7. Kumar P, Sharma N. Primary MDR-TB of the breast. *Indian J Chest Dis Allied Sci*. 2003;45:63–5.
  8. Elsiddig KE, Khalil EA, Elhag IA, Elsafi ME, Suleiman GM, Elkhidir IM, et al. Granulomatous mammary disease: Ten years experience with fine needle aspiration cytology. *Int J Tuberc Lung Dis*. 2003;7:365–9.