Clinical Course and Outcome of 12 Breast TB Cases

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Abstract

Breast TB is a very rare form of extrapulmonary TB. So, case reviews are also less common. 12 breast TB cases diagnosed and treated between June 2011- June 2014 in the private chamber were retrospectively reviewed. All cases were female, their mean age was 34.4 years. All were new cases and only one had pulmonary TB. Patients presented with hard, irregular breast lump (83.3%), swelling of the breast (25%), secretion from the involved breast (33.3%), breast pain (50%). Montaux test was negative in 83.3% patients and chest x-ray findings was positive only in one case. ESR was raised and FNAC showed granulomatous changes in all cases. All received Directly Observed Treatment Short Course regimen for a duration of 6 months. Segmental resection was not done. Small lump persisted in only 2 cases after treatment. From the above findings it can be said that breast TB should be considered as a differential diagnosis of breast neoplasia and it can be successfully treated by anti-TB drugs.

Key Wards :TB- Tuberculosis FNAC-Fine needle aspiration cytology.

Introduction

Breast TB was first defined by Sir Astley Cooper in 1829 as a rare form of extra pulmonary TB.¹ Breast TB is a very rare disease and constitutes only 0.025-1.04% of breast diseases²³. It is more frequently encountered in developing countries in Africa and Asia.⁴⁵ Presentation of breast TB is variable and may be confused with other disorders.⁶⁷ FNAC is the most extensively used initial invasive method for diagnosis of breast TB⁸⁹ and the gold standard diagnostic tool for breast TB is often misdiagnosed as a pyogenic abscess or carcinoma of breast, both clinically as well as radiologically especially if well-defined clinical features are absent.¹⁰

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Figure- 3: Tissue biopsy demonstrating the formation of epithelioid granulomas with Langerhans giant cells and lymphohistocytic aggregates.

In the present study, we aimed to evaluate demographic data, diagnostic methods, therapeutic regimens and duration of therapy in 12 breast TB patients treated with DOTs regimen.

Methods: 12 patients were diagnosed with breast TB and the directly observed therapy (DOT) regimen was put into practice. Demographic, the patients own history, physical examination findings were recorded. Blood parameters, chest x-ray, sonography and FNAC was done.

Table -1

| Treatment time | Initial phase regimen | Continuation phase regimen |
|----------------|-----------------------|---------------------------|
| 6 months       | Isoniazid, rifampicin, pyrazinamide, ethambutol or streptomycin for 2 months | Isoniazid and rifampicin for 4 months |
| 9 months       | Isoniazid, rifampicin, pyrazinamide, ethambutol or streptomycin for 2 months | Isoniazid and rifampicin for 7 months |

Results

All 12 cases were female, their mean age was 34.4 years. All were housewives, all were new cases and all were married and of reproductive age, none were pregnant at the time of diagnosis. Their postero-anterior lung radiographs were assessed as normal and had non respiratory symptoms. One had history of contact with TB patient.

Table- 2

| Criteria | Number | Percentage |
|----------|--------|------------|
| Education |        |            |
| Illiterate | 2      | 16.6%      |
| Up to primary | 3      | 25%        |
| Secondary and above | 7      | 58.3%      |
| Involved part of the breast |        |            |
| Left | 10 | 83.3% |
| Right | 2 | 16.7% |
| Bilateral | none | 0% |
| Signs in the breast |        |            |
| Hard irregular lump | 10 | 83.3% |
| Swelling of the breast | 3 | 25% |
| Secretion from the involved breast | 4 | 33.3% |
| Breast | 6 | 50% |
| Breast pain | 6 | 50% |
| Ipsilateral axillary lymph node involvement | 4 | 33.3% |
| Investigations |        |            |

Patients presented with swelling of the breast 25%, lump83.3%, excretion from the involved breast33.3%, pain50%, ipsilateral axillary lymph node involvement in 33.3%, in left side 83.3%, all were from rural areas

TB diagnostic criteria for this study was based on biopsy and clinical response. Histopathological finding of the specimen included epitheloid cell granulomas with or without caseous necrosis. All completed DOTs therapy for 6 months with a full recovery and only a small lump persisted in 2 cases.

Discussion: Incidence of breast TB accounts for less than 0.1% of all breast lesions in western countries and 4% of all breast lesions in TB endemic countries. Although tuberculosis is a very common disease in endemic areas, isolated involvement of the breast is very rare. TB of the breast is classified as primary and secondary;
primary when no other foci of TB are detectable. In our study, none had previous history of pulmonary TB. Differential diagnosis such as sarcoidosis, fungal infections, duct ectasia and coexisting malignancy should be ruled out. Khan et al diagnosed 52 breast TB cases by FNAC and histopathological methods with a rate of 100%. We also diagnosed all patients histologically.

In breast TB the presenting signs and symptoms tend to be breast masses were the most frequent examination finding. Like our study, previous study showed one third of breast TB patients have ipsilateral axillary lymph node involvement. In one study out of 22 patients had left side involvement which supports our study. Therapeutic guidelines remark that anti-TB therapy given for 6 months is sufficient. In a different study, the standard 6 month therapy was sufficient for all patients to recover. In our study group, all the patients had full recovery with persistent small mass in only 2 cases with DOTs regimen for 6 month.

Limitations: Due to retrospective nature we failed to investigate known risk factors for breast TB includinssg multiparity, lactation, trauma, history of suppurrative mastitis etc. Acknowledgements: We thank all of the patients who allowed us to use their medical records in this study.

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