

TUBERCULOSIS OF THE BREAST IN SAMARRA CITY

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Abstract

Background: Tuberculosis of udder is not a rare disease in animals especially cows but it is rare in human female breast and extremely rare in male breast.

Objectives: Looking for involvement of women breast with tuberculosis.

Methods: From the 1st of July 1992 to the 1st of July 2002, 15 female patients, all in reproductive age were studied for their breast problems under the suspicion of tuberculosis, 14 cases appeared to be tuberculosis diagnosed by FNA cytology and biopsy and treated by anti TB drugs therapeutic trial.

Results: Treatment with anti-tuberculous drugs cured 14 cases.

Conclusion: The tuberculosis of human breast is not very rare disease and should keep in mind when breast infection, ulcers, sinuses and inflammatory masses are not responding to traditional drugs. Tuberculosis of the breast responds very well to anti-tuberculous drugs and cure completely.

Keywords: Breast, tuberculosis, anti-tuberculous drugs

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Introduction

Tuberculosis (TB) is an old and nasty disease, it was common all over the world but it starts to disappear after the discovery of the anti-tuberculous drugs, yet, in the last two decades a flare up in the disease all over the world is noted and reported^[1].

Tuberculosis can affect creatures other than human being especially the cows and mainly it affects its udder, the milk production apparatus which cause infection of the milk by TB bacilli which can infect the human if it is consumed without proper sterilization^[2,3].

Tuberculosis can affect any system in the body, and many centers reported that human female breast can be involved by the disease usually unilateral and rarely bilateral and there are reported cases in India of male breast TB^[4].

Hippocrates named tuberculous lesions "pthisis" from the Greek word meaning, "to decay". Sir Astley Cooper was the first one who described a case of breast tuberculosis in 1829 and called it "scrofulous swelling of the bosom"^[5]. In 1944, Klossner reported 50 cases of tuberculosis of the breast in women, out of 75,000 with lung involvement. Later on, in 1952, McKeown and Wilkinson described two forms of breast tuberculosis, the primary in which breast infection is the only manifestation of the disease and the secondary one in which the patient had already tuberculosis diagnosed elsewhere^[6,7].

Patients & Methods

Fifteen female patients of ages 21 years-46 years, all were married and had breast-fed their children collected along 10 years from July 1, 1992 to July 1, 2002.

The right breast affected in six cases, both breasts affected in one case, and the left breast affected in eight cases including the single case of granulomatus mastitis.

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The patients presented as slowly developing breast problem, pain, swelling, and tenderness. In four patients, (26.6%) there was a nipple discharge, pus or serosanguinus in nature. 6 patients (40 %) had local redness and indurations, 3 patients (20%) had a mildly tender mass, freely mobile and not very well marginated. 2 patients (13.3%) had diffuse indurations of a localized sector of the breast.

Ten patients (66.6 %) underwent surgical drainage to their breast lesions but the drainage opening did not heal and changed to chronic ulcer with dark, undermined edges with thin watery discharge. These 10 patients subjected to fine needle aspiration (FNA) cytology, which revealed some acute and mainly chronic inflammatory cells with giant cells of Langhans type.

The rest, five cases underwent open surgical biopsy for their breast lesions, which showed a picture of chronic inflammatory changes with giant Langhans cell also. One case (6.6%) the biopsy showed a picture of granulomatous mastitis.

Nine patients had small palpable mobile lymph nodes in the same side axilla, but no one had a chest or lung problem.

Because of no response of these cases to treatment by traditional antibiotics and the lesions, persist for more than 1-2 months, Anti TB drugs therapeutic trial given with a very good response within 2-3 weeks in 14 cases.

The anti TB drugs used are INH tablets 100 mg three times daily, ethambutol tablets 500mg three times daily, rifampicin capsules 300mg twice per day for two months then stopping ethambutol and continue on the others for 6-9 months.

Results

The single case, which did not respond to anti TB drugs, was the case of granulomatous mastitis, which responded moderately to steroids.

All tuberculous patients have cured and the affected breasts became normal in shape, size, texture and consistency. All the ten patients who had ulceration of the skin of the breast developed a small scar with a faint white yellowish discoloration at the site of the ulcer after its healing.

One patient developed cholestatic jaundice 2 weeks after starting rifampicin capsules due to hepatic toxicity. Thus, the treatment stopped for 3 weeks until the patients condition improved. Again, anti TB regimen started with substituting rifampicin by streptomycin injections one gm. i.m daily for 2 months. INH and ethambutol tablets then stopped for other 4 months. One year after, the patient developed swelling and induration with pain at the same site of the previous lesion. FNA cytology revealed epithelioid cells with Langhans giant cells. So the case regarded as recurrence and new course of anti TB regime started, INH, ethambutol, streptomycin, and pyrazinamid for 2 months. The streptomycin stopped and we continued with the other three drugs for other 4 months.

Including the recurrent case, eight patients became pregnant and breast-fed their babies after delivery with no problems.

The treatment and cure of the 14 patients whose diagnosis depends on the clinical picture, FNA cytology and biopsy suggestion because it is very difficult to reveal the TB bacilli in the examined samples and cultures, and it is the same policy followed in other countries, India and North Korea.

Discussion

Today, TB remains as a major public health problem in the world. According to the WHO, 10 million new cases of active TB occur each year worldwide^[8]. HIV infection, chronic diseases, malignancy, transplantation and other

immunosuppressive conditions, aging, and resistant strains lead to increase of TB patients^[9,10]. In these groups, tuberculosis may present atypically and sometimes with predominant extra-pulmonary manifestations that result in delays in diagnosis and treatment^[11].

Tuberculosis of the breast is a rare disease. It is uncommon even in countries where the incidence of pulmonary and extra-pulmonary tuberculosis is high^[12].

Primary form is an infection of the breast through abrasions or through the openings of ducts in the nipple. Secondary form is the result of reverse lymph flow in the axillary lymph nodes or it may be due to direct spread of the infection from intra-thoracic foci^[12,13].

Routes of infection include hematogenous spread, lymphatic spread from intra-thoracic foci or from intra-abdominal foci, and by direct extension from adjacent tissues or via abrasions of the skin^[9,14].

According to clinical, radiological and pathological appearance of the disease, there are three types of breast tuberculosis:

1. Nodular tuberculosis characterized by a well circumscribed, slowly growing, painless mass. Often the mass, getting larger, infiltrates the skin. At this point, the tumor becomes painful, causing ulceration, and discharge from one or more sinus tracts. This course makes differentiation from carcinoma very difficult.

2. Diffuse type or disseminated tuberculous mastitis characterized by multiple foci, which may lead to sinus formation. The overlying skin thickened and painful ulcers may develop. Axillary lymph nodes frequently infiltrated.

3. Sclerosing type, where excessive fibrosis is the dominant feature. It is slow growing, and suppuration is rare. Clinically there is a hard, painless lump with nipple retraction. Clinical

examination usually fails to differentiate carcinoma from tuberculosis^[15,16].

FNA cytology has proved to be very useful for diagnosis of breast tuberculosis and reflects the histopathological lesion very accurately^[17]. Treatment with standard anti tuberculous drugs has proved to be very successful and avoids unnecessary mutilating surgery^[18].

Conclusion

The TB of the breast in human female is not a very rare disease neither in our country nor in other countries so the disease should be kept under suspicion in treating breast lesions.

The response to treatment with standard anti tuberculous drugs is very good and the cure rate is high.

Because it is difficult to reveal the TB bacilli in the specimens from the lesion, the policy of anti TB drugs therapeutic trial should be followed in the treatment.

References

1. Cooper, A.: Illustrations of the diseases of the breast. London: Longman, Rees & Co. 1829.
2. Klossner, A.R.: Uber die Brustdrusentuberculose. Eine pathologisch-anatomische und klinische studie. Acta Chir Scand, 1944; 90 (Suppl. 85): 1-181.
3. Banerjee, A., Green, B., and Burke, M.: Tuberculous and granulomatous mastitis. Practitioner, 1989; 233: 754-7.
4. Tan, K.K., and Tan, T.H.: Tuberculosis of the breast. Singapore Med J, 1988; 29: 271-5.
5. Sheikh, M.Y., Rana, T.A., and Islam, M.U.: Tuberculous mastitis mimicking malignancy: a case report with review of literature. JPMA, 1993; 43: 122-3.
6. Bahadur, P., Aurora, A.L., Sibbal, R.M., and Prabhu, S.S.: Tuberculosis of the mammary gland. JIMA, 1983; 21: 67-80.
7. Rangabhashyam, N., Gnanaprakasm, D., Krishnaraj, B. et al.: Spectrum of benign breast lesions in Madras. J R Coll Surg Edinb, 1983; 28: 369-73.
8. Sharma, A.K., Sree, S., and Misra, S.K.: Tuberculous mastitis: a pragmatic approach to its management. Aust N Z J Surg, 1993; 63: 263-5.
9. The Breast. In: AJ Hardinge Rains, Charles V Mann, eds. Bailey and Love's short practice

- of surgery, 20th ed. London, HK Lewis and Co. Ltd., 1989; p.p. 712-39.
10. Wilson, J.P., and Chapman, S.W.: Tubercular mastitis. *Chest*, 1990; 98: 1505-9.
 11. Tabar, L., Kett, K., and Nemeth, A.: Tuberculosis of the breast. *Radiology*, 1979; 118 (3): 587-9.
 12. Baily & Loves Short Practice of Surgery. 23rd edition, 2000.
 13. Shinde, S.R., Chandawarkar, R.Y., and Deshmukh, S.P.: Tuberculosis of the breast masquerading as carcinoma: a study of 100 patients. *World J Surg*, 1995; 19 (3): 379-81.
 14. Goksoy, E., Duren, M., Durgun, V., and Uygun, E.: Tuberculosis of the breast. *Eur J Surg*, 1995; 161 (7): 471-3.
 15. Mekanjuola, D., Murshid, K., Sulaimani, A.I., and Al-Saleh, M.: Mammographic features of breast tuberculosis: the skin bulge and sinus tract sign. *Clin Radiol*, 1996; 51 (5): 354-8.
 16. Oh, K.K., Kim, J.H., and Kook, S.H.: *Eur Radiol*, 1998; 8 (8): 1475-80.
 17. Tabar, L., Kett, K., and Nemeth, A.: Tuberculosis of the breast. *Radiology*, 1976; 118: 587-9.
 18. D'Orsi, C.J., Feldhaus, L., and Sonnefeld, M.: Unusual lesions of the breast. *Radiol Clin N Am*, 1983; 21: 67-80.