

Tuberculous Mastitis Mimicking Malignancy - A Case Report with Review of literature

Pages with reference to book, From 122 To 123

M. Younus Sheikh, Tauqir Ahmed Rana, Muhammad Timar Islam (Department of Radiology, The Aga Khan University Hospital, Karachi.)

Tuberculous mastitis is an uncommon disease even in areas where the incidence of pulmonary and extra pulmonary tuberculosis is still very high¹. We present a case of tuberculosis mastitis which presented as a breast lump. On radiological findings, erosion of rib was also seen with pleural based mass mimicking malignant process.

Case Report

A 40 year old lady with previous history of pulmonary tuberculosis presented with the recent onset of non-tender, 2x2 cms, freely mobile lump in the left breast. Chest radiograph showed a pleural based lesion with erosion of fourth rib on right side with associated soft tissue mass (Figure 1a).

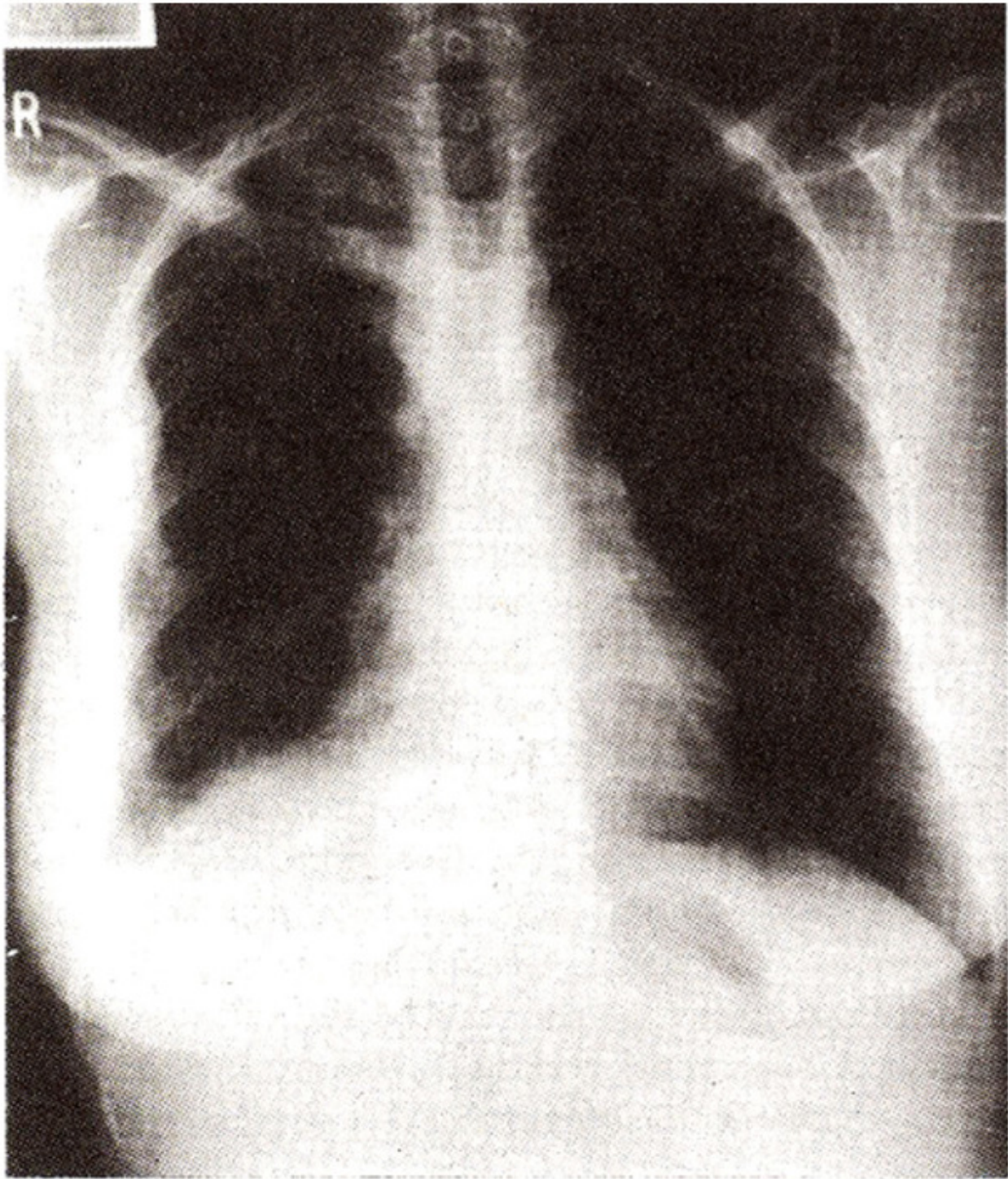


Figure 1a. Postero-anterior radiograph of chest showing a soft tissue mass in relation to the eroded right fourth rib.

Because of the radiological finding malignancy with metastasis to the chest wall was suspected. A mammogram was done which revealed a well defined nodular density without any associated micro-calcifications, skin thickening and nipple retraction (Figure 1b).



Figure 1b. Mediolateral oblique mammogram of left breast showing a rounded well defined density without any microcalcification or overlying skin thickening.

Because of the eroded rib and soft tissue mass a CT scan was performed which showed a soft tissue density mass in relation to the right fourth rib with underlying destruction. No other intrathoracic lesion or lymphadenopathy seen. A CT guided fine needle aspiration biopsy of the thoracic lesion was done. The smear showed acid fast bacilli and later on mycobacterium tuberculosis was cultured. Biopsy of

the breast lump was also performed which showed epitheloid cells with granuloma formation indicating tuberculosis.

Discussion

Tuberculosis in both primary and disseminated form is still considered a common disease in our country. Tuberculosis involving the breast - tuberculous mastitis is still an uncommon and rare entity¹. Even at its peak incidence in the pre- antibiotic era, the tuberculous mastitis accounted for 2% of the breast diseases². In 1829, Sir Astley Cooper was the first person to describe tuberculous mastitis. Since then occasional reports of tuberculous mastitis have been appearing in literature mostly from areas where tuberculosis is still prevalent^{3,4}. The most common presentation of tuberculous mastitis is benign breast lump^{1,2,5}. Other presentation includes sinus or abscess formation⁵. There is no general consensus regarding the pathogenesis of tuberculous mastitis. The prevailing theory being direct extension or lymphatic spread⁶ and appears that the route of spread is exactly opposite to the route by which carcinoma of breast may metastasise to lungs⁷. The hematogenous route remains doubtful and it seems that breast is resistant to tuberculous infection even in patients with debilitated disease⁷. The mammographic presentation usually is well defined mass suggesting fibroadenosis⁸. The clinical diagnosis of tuberculous mastitis is very difficult as it may be indistinguishable clinically from carcinoma⁹ and diagnosis rests on biopsy⁸. Although the diagnosis is essentially on histological grounds⁵ but acid fast bacilli are only present in few of cases^{5,8}. Alagaratnam⁹ has reported histological appearance of acid fast bacilli in 3 and positive culture in 4 of the 16 cases. In our case the presentation was complicated by associated pleural mass as well as a rib destruction distant to the primary breast lesion mimicking a malignant process with metastasis. The final diagnosis was made on fine needle aspiration and histopathology of rib lesion as well as breast lump.

References

1. Akinola, DO., Adejuyigbe, O., Odecsarsmi, W.O. Primary tuberculosis mastitis in a Nigerian woman. *West Afr. J. Med.*, 1989;8:209-12.
2. Schaefer, G. Tuberculosis of the breast: a review with additional presentations of 10 cases. *Am.Rev.Tuberc.*, 1955;72:810-14.
3. Cooper, A. *Illustration of the diseases of the breast* London, Longmans Rees, 1829.
4. Dubey, MM., Agarwal, S. Tuberculosis of the breast *J. Indian Med. Assoc.*, 1968;51:358-59.
5. Cohen, c. Tuberculous mastitis. *S. Afr. Mcd. J.*, 1977;51:611-14.
6. Shams, P.K., Babel, A.I., Yadav, S.S. Tuberculosis of the breast *J. Postgrad. Med.*, 1991;37:24-26.
7. Domingo, C., Ruiz, S., Roig, S., Texido, A., Aguilsr, X., Morers, S. Tuberculosis of the breast: a rare modern disease. *Tubercle.*, 1990;71:221-23.
8. McKeown, K.C., Wilkinson, A.W. Tuberculosis disease of the breast *Br.J. Surg.*, 1952;39:420-29.
9. Alagaratnam, T.T., Ong. GB. Tuberculosis of the breast *Br.J. Surg.*, 1980;67:125-26.
10. Banerjee, A., Green, B., Burke, M. Tuberculous and granulomatous mastitis. *Practitioner*, 1989;233:754-57.