

Multi - organ involvement of Tuberculosis- Case report of an atypical presentation

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Summary

A case involving tuberculosis of multiple organs and mimicking carcinoma in several respects is presented.

Key Words: Multi-organ, tuberculosis, atypical presentation

Case History

A 41 year old Malay male of medium build, a farmer, was referred to the Chest Clinic from the medical ward in April 1986 with a histopathological report of a lymph node biopsy suggestive of tuberculous adenitis.

He gave a history of fever with night sweats, chest pain and breathlessness, non productive cough and backache of one month's duration. His appetite was diminished and significant weight loss was noted. Subsequently, he also developed an acute onset of inability to walk, of 10 days duration, but there were no problems of micturition and defaecation. There was no previous history of PTB or of contact with TB patients. He was not diabetic or hypertensive, and he did not smoke or drink. There was no history of fall or fracture.

On examination, he looked anxious: Blood pressure and pulse rate were normal. There was no pallor or clubbing. Examination of heart, lungs and abdomen were normal. Multiple lymph node swellings were found in the right cervical region. Multiple cystic swellings 5 X 5 cm in size were noted over the anterior chest wall.

There was bilateral spastic paralysis of the lower limbs with intact sensation. There was no spinal tenderness or gibbus formation. Chest X'ray revealed soft opacities in the right upper zone with erosion of the second left rib (Fig.1). Vertebral X'ray showed erosion of the pedicles and bodies of T 10, 11 with disc destruction and there was also a paravertebral abscess. (Fig.2 , 3). Culture of the pus from one of the cystic lesions grew mycobacterium tuberculosis.

His full blood picture, urine examination, renal profile and liver function tests were normal. Sputum direct smears for acid fast bacilli and culture for mycobacterium tuberculosis were negative. In view of the lymph node biopsy results, anti TB treatment was started on April 3, 1986. Two months after that, he was referred to the neurosurgical unit, General Hospital, Kuala Lumpur for further management of his acute paralysis. The CT scan showed multiple involvement of the

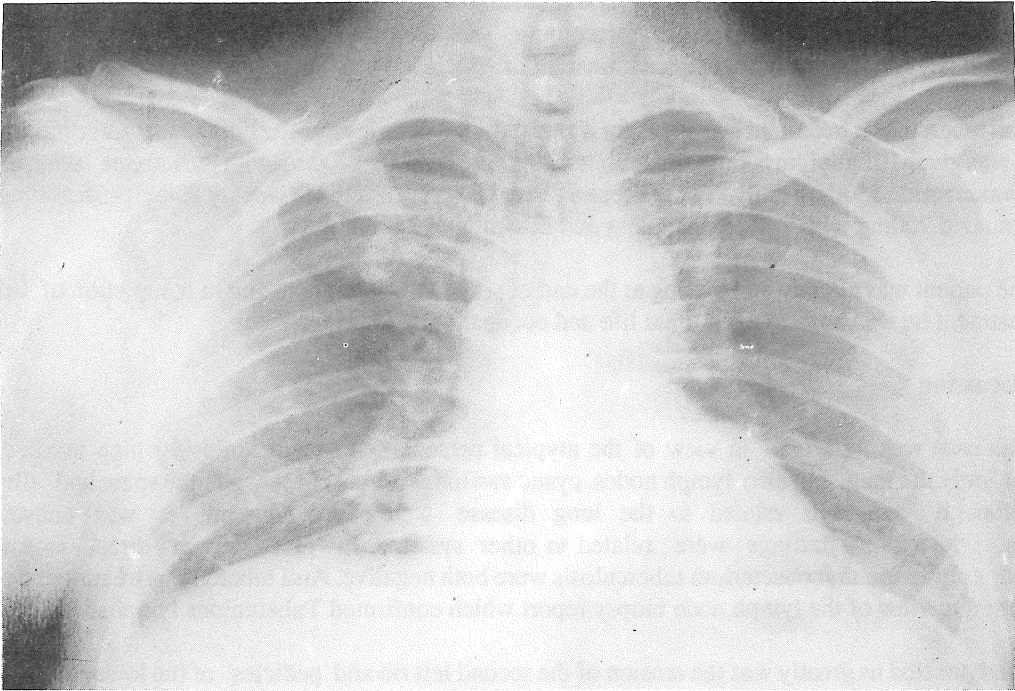


Fig.1 - Shows erosion of 2nd left rib. Bone Biopsy revealed Tuberculous Osteomyelitis

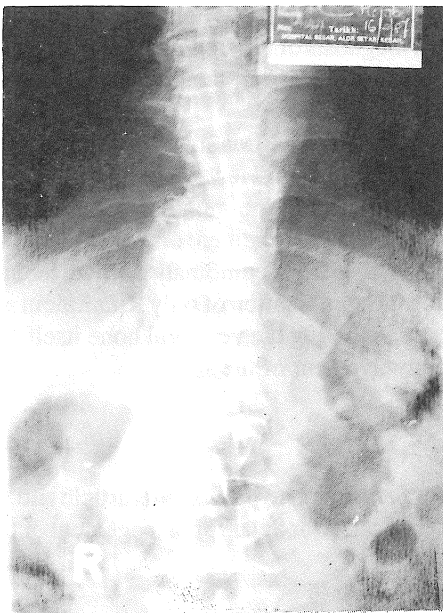


Fig. 2 - Shows erosion of Pedicles and bodies of T₁₀, T₁₁ with disk destruction and Paravertebral Abscess.

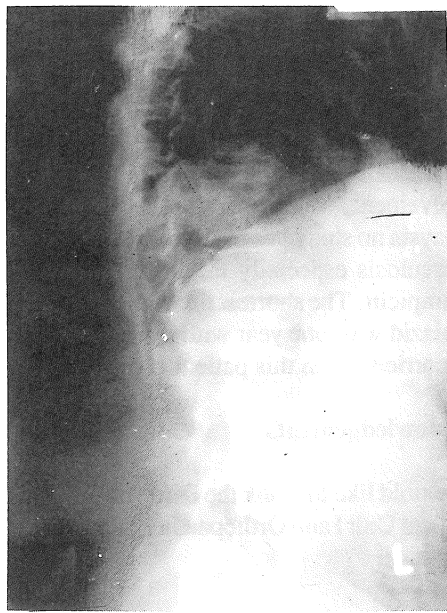


Fig.3- Lateral view showing disc destruction and erosion of bodies of T₁₀, T₁₁

vertebral bodies at various thoracic levels and erosion of the left second and third ribs. The findings were suggestive of secondaries. A thoracotomy was done and a bone biopsy taken from the second left rib, histopathological examination of which showed Tuberculous osteomyelitis.

Anti tuberculosis treatment was given for a total duration of nine months. For the first three months he was given Rifampicin 600mg, Ethambutol 1000mg, Isoniazid 400mg with Pyridoxine 10mg and Pyrazinamide 1500mg daily. For the second phase he was given twice weekly Rifampicin 600mg, Isoniazid 700mg with Pyridoxine 10mg and Ethambutol 2400mg.

The patient was already ambulating at the end of six months treatment and at completion of full treatment he was back to his normal life and occupation as a farmer.

Discussion

This case was reported in view of the atypical presentation of tuberculosis which involved not only the lung, but also lymph nodes, cystic swellings of the chest wall, the spine and ribs. Although symptoms related to the lung disease were predominant, it was unusual that the major findings were related to other systems. In fact sputum direct smears and culture for mycobacterium tuberculosis were both negative. Anti tuberculous treatment was started in view of the lymph node biopsy report which confirmed Tuberculous lymphadenitis.

What puzzled us greatly was the erosion of the second left rib and pedicles of the lower thoracic vertebrae (i.e. T10, T11). Erosion of the rib usually suggests secondary malignant deposits. It is generally accepted that erosion of the pedicle is pathognomonic of malignant secondary deposits in the spine whereas the typical picture of spinal tuberculosis is destruction of the vertebral body and sometimes involvement of the spinal cord¹. Furthermore cystic swellings on the anterior chest wall aroused suspicion of malignancy. CT scan findings enhanced the opinion of secondaries in the spine and ribs. Fortunately the final diagnosis of tuberculosis was confirmed by culture of the anterior chest wall abscesses and the bone biopsy from the left second rib.

The duration recommended in Malaysia for the short course of treatment for pulmonary tuberculosis using four drugs is six months. However, in this case in view of the multi-organ involvement, we decided to treat the patient for a total duration of nine months. Moreover in Malaysia no study has been carried out to our knowledge concerning treatment of extra pulmonary tuberculosis especially that of tuberculosis of the spine using drug combinations that include Rifampicin. The shortest time taken in other centres using the combination of only Rifampicin and Isoniazid was one year with satisfactory results². Surgery involving the vertebral bone itself was not carried out in this patient because of the multiple involvement of the spine.

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