

**A CASE OF LATE GENERALISED TUBERCULOSIS WITH
NORMAL CHEST RADIOGRAPH***

RANI BALASUBRAMANIAN, RAJESWARI RAMACHANDRAN AND R. PRABHAKAR

Summary : A case of Late Generalised Tuberculosis with extensive systemic involvement but normal chest radiograph is described.

Introduction

In the pre-chemotherapy era, Late Generalised Tuberculosis (LGT) was often the first manifestation of disease occurring principally in young adults and frequently associated with pulmonary symptoms. In the chemotherapy era, LGT commonly occurs together with and frequently obscured by other diseases and is much less frequently accompanied by pulmonary symptoms. A case of LGT with normal chest radiograph is presented here.

Case report

A 35-year old housewife was referred from General Hospital with a history of distension of abdomen, intermittent diarrhoea, loss of appetite and borborygmi of 2 months' duration. Abdominal distension developed 5 months after a normal full term delivery and was progressive in nature. There was no associated abdominal pain or fever or history of previous treatment for chronic diseases like tuberculosis, hypertension, diabetes. There was no history of contact with any person suffering from tuberculosis. Menstrual history and family history were not contributory. On examination massive ascites with umbilical hernia was the only significant clinical finding.

Investigations

Mantoux test gave a reaction of 18 mm. X-ray chest was normal. Sputum was negative for Mycobacterium tuberculosis by smear and culture. Clear straw coloured ascitic fluid, about 13 litres in all, was aspirated (on 4 occasions). Cell count was 300/cells per cu. mm. with 99% lymphocytosis. This ascitic fluid yielded positive culture for mycobacterium tuberculosis, sensitive to streptomycin, isoniazid and ethambutol. The fluid was an exudate and the ratios of serum proteins and serum LDH to ascitic fluid were as follows :

	Serum	Ascitic fluid	Ratio
Protein (gm%)	7	3.2	0.46
LDH (Unit/Litres)	225	161	0.72

LFT values were normal. Haemogram showed mild anaemia. Three mid-stream urine samples were sent for AFB cultures of which one yielded positive culture for mycobacterium tuberculosis. Barium meal and barium enema studies were normal. While under investigation, patient developed mild right hemiparesis suddenly. CSF examination was normal and computerised Axial Tomography Scan of brain showed a ring shadow with contrast enhancement on the left side. There was no midline shift. The picture was suggestive of a tuberculoma of the left parietal lobe of the brain (Fig. 1).

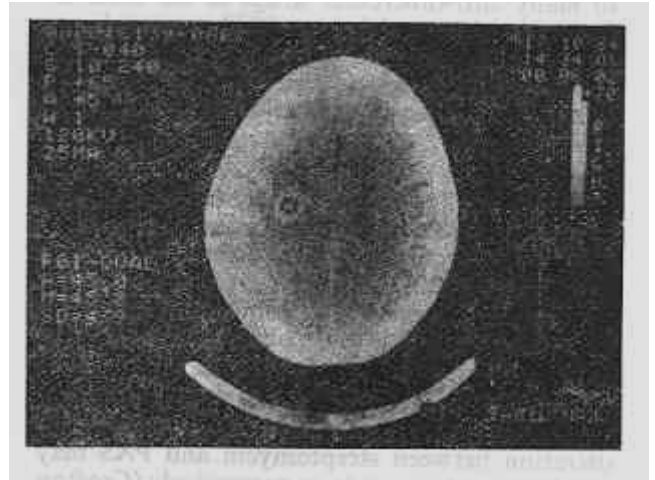


Fig. 1

Ring shadow with contrast enhancement in the left parietal lobe of the brain.

In view of the above findings of culture positive ascites and suspected tuberculoma of brain a diagnosis of peritoneal tuberculosis with tuberculous involvement of brain and urinary tract was made and the patient was put on anti-TB drugs. Liver biopsy was done to rule out cirrhosis since ascites persisted for 1 month after treatment. Biopsy revealed hepatitis with a focal granuloma. ZN stain was positive for AFB, confirming Tuberculous etiology. Liver biopsy material culture was negative for A.F.B. Ascites disappeared in

*Address for reprints : The Director, Tuberculosis Research Centre, Spur Tank Road, Chetput, Madras-600031.

2 months time. Patient gained weight and hemiparesis improved except for brisk reflexes. A repeat scan after 2 months showed persistence of parietal tuberculoma with no change in size.

Discussion

Tuberculous involvement of more than one system is well known. Generalised tuberculosis signifies widespread occurrence of miliary tubercles engendered by haematogenous dissemination of virulent tubercle bacilli from an active caseous focus. If it occurs long after the primary infection, it is designated as late generalised TB. If the tuberculous bacillæmia is massive the disease is generally fatal, if untreated. But on the other hand, if the tuberculous bacillæmia is slight, a few tubercles are formed in various organs which may serve as 'seed beds' for the later development of organ TB and LGT. Within the past 3 decades the presentation of acute miliary TB has changed radically. Numerous reports have indicated an ever increasing number of elderly patients afflicted by this kind of TB (Editorial 1970, Myers 1970 and Clinicopathologic Conference 1975). Moreover the diagnosis is often made only at the time of autopsy as either concomitant illness marked the clinical picture or the disease presented in an insidious fashion, unassociated with the typical hallmark of miliary TB. Proudfoot et al (1969) coined the term "Cryptic" to describe atypical presentation of miliary TB, where patients had unexplained prolonged fever with clear chest radiograph with progressive loss of weight. Slavin et al (1980), in their review of 100 postmortem examinations of patients who died from disseminated TB identified lungs as source of miliary dissemination only in 46 cases. They feel the clinical presentation of disseminated TB or LGT as seen in a general hospital has changed. In the pre-chemotherapy era, late generalised tuberculosis was often the first manifestation of disease, occurring principally in young adults and frequently associated with pulmonary symptoms. In the chemotherapy era, LGT commonly occurred together with and was frequently obscured by other diseases, often afflicted the elderly and was, much less frequently accompanied by pulmonary symptoms. The role of extrapulmonary sites as source of dissemination changed in the chemotherapy era (75%)

when compared to pre-chemotherapy era (40 %) It is possible that pulmonary lesions were very scanty, tiny and not sharp enough to be identifiable on a chest radiogram. However, this case does not fit the 'cryptic' picture since aortic was definitely tuberculous and the brain lesion was consistent with a tuberculoma.

The diagnostic impression based on the clinical presentation in this patient appeared to be cirrhosis of liver or hypoproteinemia, It is profitable for a clinician practising in this part of the country to be aware of the possibility of ascites of tuberculous aetiology and but for the culture for tubercle bacilli this could have been missed. A positive tuberculin test may be helpful but not diagnostic. In addition, examination of urine, gastric aspirate, ascitic fluid, sputum etc., for mycobacterium tuberculosis in suspected cases of miliary tuberculosis is quite often rewarding.

Since the clinical presentation for LFT frequently is not distinctive and may even be clandestine the diagnosis depends on high index of suspicion and demonstration of miliary tubercles and the tubercle bacillus.

This case presentation is intended to draw attention to the fact that disseminated form of tuberculosis should still be thought of even when chest radiograph remains normal. Early diagnosis and prompt effective treatment will ensure full recovery.

REFERENCES

- Clinicopathologic Conference. Miliary tuberculosis. *Am. J. Med.*, 1975, 58, 847-856.
- Editorial : Miliary tuberculosis : A. changing pattern. *Lancet*, 1970. t. 985-986.
- Myers, J.A. : Miliary tuberculosis in the elderly *Br. Med. J.*, 1970. 1, 565.
- Proudfoot, A.T., Akhtar, A.J., et al : Miliary tuberculosis in adults. *Br. Med. J.*, 1969. 2, 273-76.
- Slavin, R.E., Walsh, T.J. and Pollack A.D : Late Generalised Tuberculosis : A clinical pathologic analysis and comparison of 100 cases in the pre-antibiotic and antibiotic eras. *Medicine*, 1980, 59, 352-66.