

Case Report

Congenital tuberculosis presented as chronic persistent pneumonia: a case report of 3 months old baby

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Congenital tuberculosis is a rare disease though recently, the risk of congenital tuberculosis among child bearing age has increased. We report a case of congenital tuberculosis, who presented as chronic persistent pneumonia in late Neonatal period and mother was diagnosed as having asymptomatic genital tuberculosis. The clinical presentation of congenital tuberculosis is nonspecific earlier making diagnosis delayed, particularly when mother is asymptomatic. The mortality rate among infants with congenital tuberculosis is 38% overall and 22% among infants who received anti-tubercular therapy. Usually in 50% cases, it can present as chronic persistent pneumonia.

Keywords: Congenital Tuberculosis; chronic persistent pneumonia.

INTRODUCTION

In our case, a 3 month old male baby coming from a village of low socio-economic group, presented with low grade continued fever for last two months and mild to moderate respiratory distress for the last two and half months. The baby did not have birth asphyxia. Birth weight was 2.5 Kg. Baby was immunized with BCG and 1st dose of OPV and DPT. Baby is exclusively breast feed. Examinations revealed, dyspnoeic baby with mild sub-costal, intercostals & suprasternal recessions without any grunt. Respiratory rate was 58/min, pulse 180/min, and he was febrile. Baby was mild anemic without any cyanosis or lymphadenopathy. Anthropometric measurements showed HC-38.5cm, length-57cm weight 4.25 Kg. On chest examination, -baby did not have any chest deformity. Trachea was central in position with dull note on percussion in right side. Breath sound and vocal resonance were decreased on the affected side. Liver was 6cm firm, nontender and spleen was not palpable. Laboratory investigation showed Hb-11gm%, ESR-10,

total leucocyte count 14000/cmm with N56 L44; mantoux 6mm. Chest X-ray revealed almost whole of right lung was opaque with right middle lobe consolidation with mild pleural effusion. Diagnostic pleural tap revealed 1 ml milky white pus. Pus was positive for AFB and culture confirmed presence of mycobacteria. Gram stain shows, Staphylococcus aureus. CT scan which showed Paratracheal hilar lymphadenopathy compressing middle lobe bronchus producing partial narrowing of middle bronchus and middle lobe consolidation with right sided pleural thickening and mild effusion (figure 1). On family screening chest x-ray of mother was within normal limit but on ultra sonography of abdomen of mother revealed unilateral right sided Tubo-ovarian mass. Endometrial biopsy showed granulomatous endometritis with caseation indicating a tuberculous pathology (Figure 2). Mother was treated with anti-tuberculars drugs. The baby received several antibiotics without any improvement before and after admission. The child was started on Directly Observed Therapy (DOT) CAT-1 (2H3R3Z3E3 + 4H3R3) in our institution in the following doses (INH-15mgm/Kg, Rifampicin- 15mgm/Kg Pyranazimide-35mgm/Kg Ethambutol-20mgm/Kg). In

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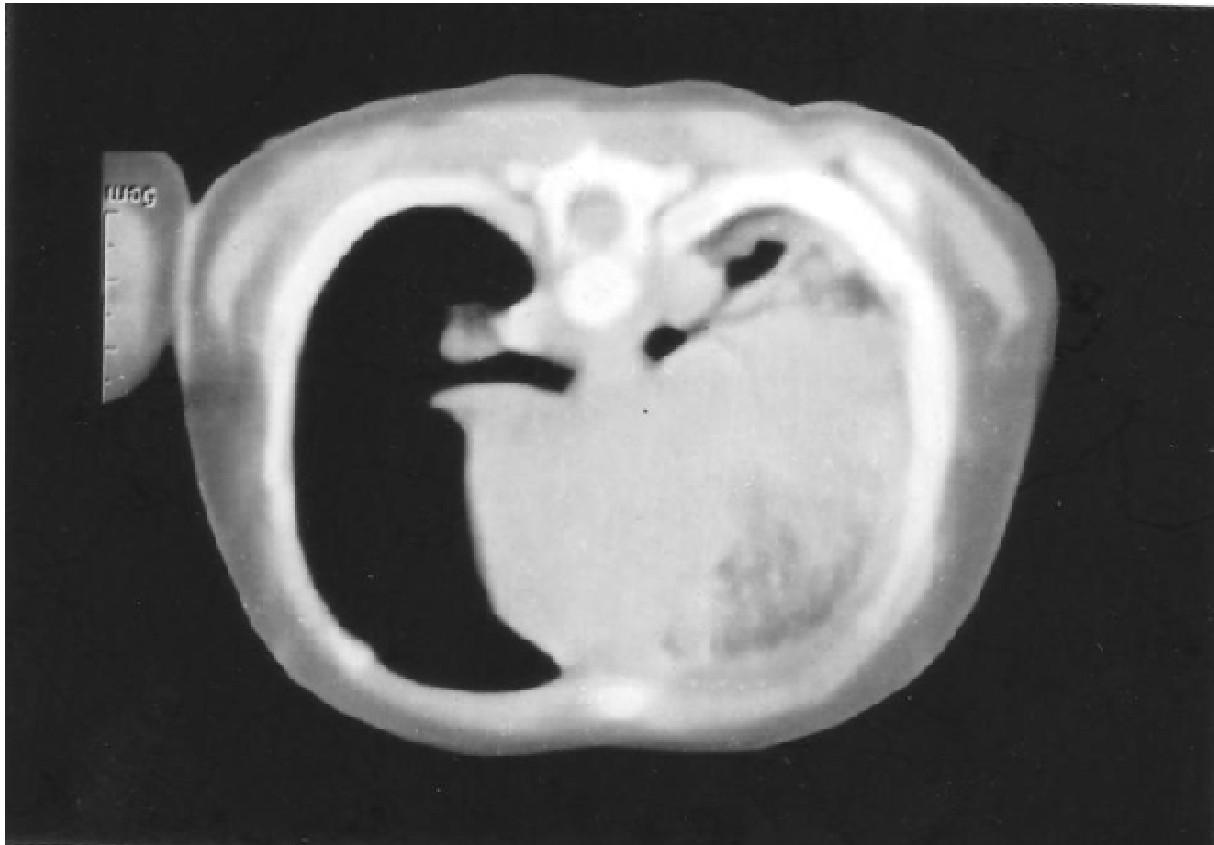


Figure 1: Showed paratracheal hilar lymphadenopathy compressing middle lobe bronchus producing partial narrowing of middle bronchus and middle lobe consolidation with right sided pleural thickening and mild effusion

follow up clinic, the baby was coming regularly for last six months and is now completely improved.

DISCUSSION

Cantwell et al in 1994 revised the criteria of Beitzkie (1948) for the diagnosis congenital tuberculosis. For diagnosis of congenital tuberculosis at least one of the following criteria has to be present.

- 1] Lesions in the neonatal period of life
- 2] A primary hepatic complex or caseating hepatic granuloma
- 3] Tuberculous infection of the placenta or the maternal genital tract or
- 4] Exclusion of the possibility of post natal transmission by thorough investigation of contact. In our case, there is proved, tubercular lesion in the mother in the form of right sided tubercular tubo-ovarian mass. Placenta was not examined after delivery. Ultrasonography of the baby did not reveal any abnormal hepatic echotexture and liver biopsy was unremarkable. The age of manifestation of congenital tuberculosis is from one to eighty four (1-84) days though 4 months old baby having congenital

Tuberculosis have been reported (Kini, 2002). Three cases are reported within one year from a neonatal unit in developing country like Tanzania where failure to thrive was the most common symptom (Manji et al., 2001). Congenital Tuberculosis has also been reported in premature baby (Stahelin-Massik et al., 2002), even in an extremely low birth weight newborn with a birth weight of 973gm (Saitoh et al., 2001). Here in our case, the congenital tuberculosis has presented as chronic persistent pneumonia from a mother who is having asymptomatic genital Tuberculosis and the baby was treated with several antibiotics but not responded. Therefore, every case of chronic persistent pneumonia in early infancy, we have to exclude congenital tuberculosis by all means otherwise diagnosis will be delayed and morbidity and mortality due to congenital tuberculosis will be increased.

CONCLUSION

To decrease the morbidity and mortality in infancy, any case presented with chronic persistent pneumonia,

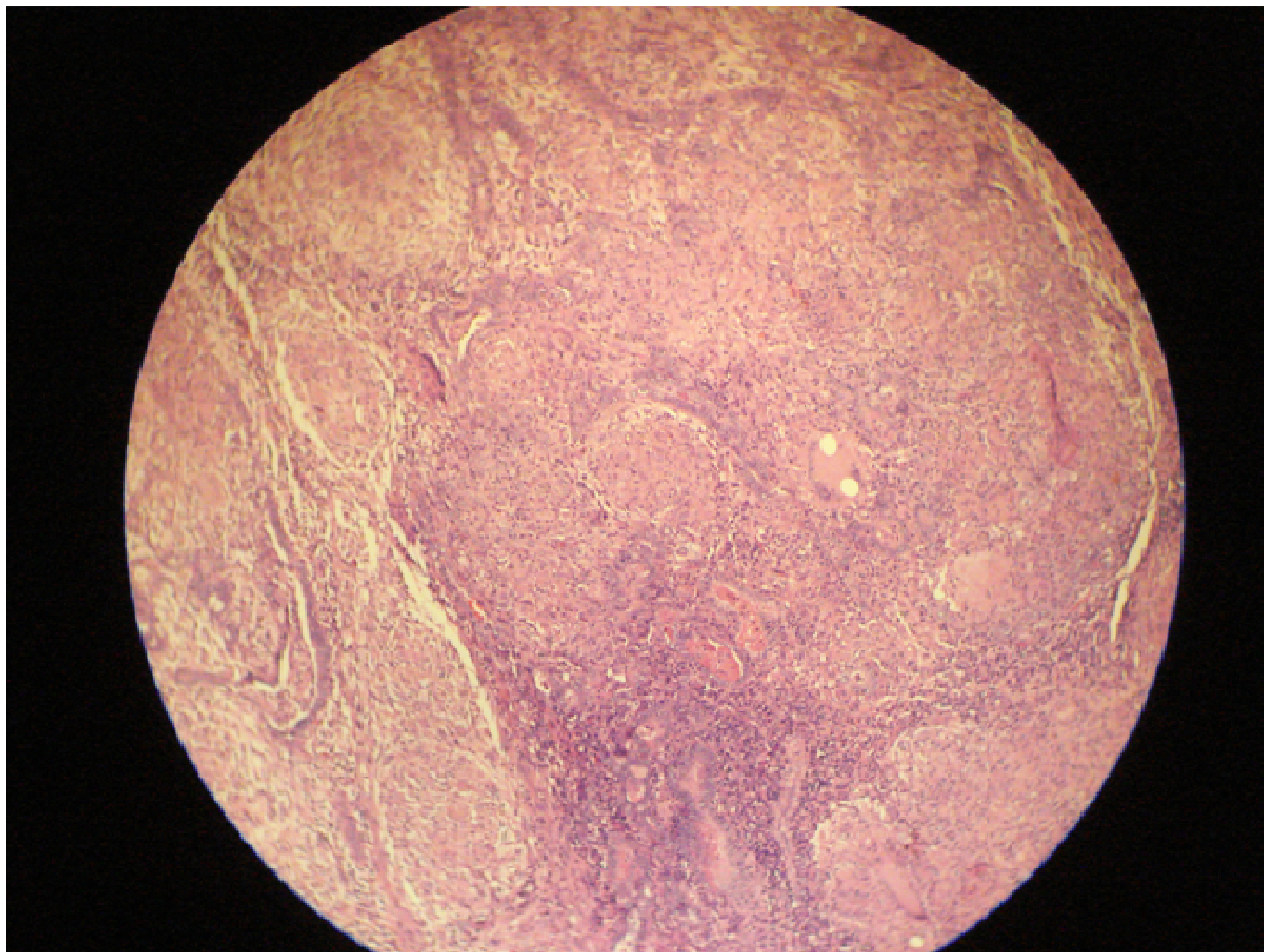


Figure 2: microphotograph showing epitheloid cell granuloma and Langhan giant cell with Caseation. Histology of tuberculous endometritis. H &E 100X

Congenital Tuberculosis must be excluded along with extensive study for family screening as there may be some cases of asymptomatic Mother with Genito-Urinary Tuberculosis.

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