CASE REPORT

CONGENITAL TUBERCULOSIS

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Abstract

Congenital tuberculosis is an unusual and severe clinical presentation of mycobacterium tuberculosis (MTB) infection. It is usually difficult to diagnose and treat. We report a six weeks old male infant who presented with fever and difficulty in breathing since birth. The diagnosis was made by demonstration of MTB bacilli in the gastric aspirate of baby and chest radiographaphy. Mother was on anti tubercular treatment (ATT) for past four months. Baby showed improvement on ATT.

Key words: Congenital tuberculosis, Gastric aspirate

Introduction

Congenital tuberculosis is considered when infection with tubercle bacilli takes origin either during the intrauterine life or before complete passage through birth canal (1). Infection has clinically been thought to be acquired in three ways (a) transplacentally, with primary complex in liver, (b) aspiration of infected amniotic fluid during passage through birth canal, when lungs are primary focus and (c) ingestion of infected material where the primary focus is the gut. The diagnosis of the disease is missed due to the difficulties in performing the diagnostic tests which are mostly invasive. Despite high prevalence of tuberculosis in the world, only 300 such cases have been reported so far in literature (2). We are here by reporting a case of congenital tuberculosis.

Case Report

A 6 weeks old boy presented with fever and difficulty in breathing since birth. Initial x-ray chest showed a large homogenous patch on left lung field. He was shown to several physicians and had received several antibiotics without improvement. He was born to 24 years old, first gravida mother at home by normal vaginal delivery and baby cried just after the birth. Antenatal period was supervised at the nearby primary health center where she was diagnosed as a case of pulmonary tuberculosis. Anti tubercular treatment (ATT) was initiated when she was in fifth month of pregnancy and her sputum was negative for acid fast bacillus (AFB) after 2 months of treatment. Her HIV ELISA was negative. Baby was exclusively breast fed and BCG mark was not noticed. On examination weight was 3.1kg, length was 48 cm and head circumference was 38 cm. Respiratory rate was 70/min with subcostal and intracostal retractions. There was pallor and respiratory system examination revealed decreased air entry over left suprascapular and scapular area with bilateral crepitations. Other systems were normal. Investigations showed hemoglobin of 8 g/dl, total leucocyte count of 8700/cumm. with 78% neutrophils and platelet counts was 1,50,000/cumm. X-ray chest showed a large homogenous patch on left side. Ultrasound abdomen revealed hepatomegaly. Liver function tests were normal. Child was treated with antibiotics but did not show any improvement. Gastric lavage was positive for AFB on 3 consecutive days. Baby was started on ATT and showed improvement after 2 weeks of therapy.

Discussion

Congenital tuberculosis remains a rare disease but fatal if untreated. Early detection is difficult because of the nonspecific nature of symptoms in tuberculosis during pregnancy and infancy (3).

In 1935, Beitkzkee proposed the following criteria for diagnosis: (I) Tuberculosis must be established by isolation of M. tuberculii in an infant. (II) Primary complex must be demonstrated in liver as a proof of dissemination of tubercular bacilli from umbilical vein. (III) If primary complex is not demonstrated then, either tubercular lesion must be present in neonate within few days of birth and post natal infection must be excluded (4). Our patient fulfilled criteria (i) and (iii) as MTB was demonstrated in the gastric aspirate of baby and the lesion was found in the chest radiograph. Patient had symptoms from birth and mother was already sputum negative before two months of delivery.

In 1994, Cantwell et al proposed a new set of diagnostic criteria. Those are - (i) lesion in infant in first week of life, (ii) primary hepatic complex or caseating hepatic granuloma in the infant, which may be demonstrated by liver biopsy, (iii) tubercular infection of placenta or maternal genital tract, (iv) exclusion of post-natal transmission. To diagnose congenital tuberculoses, one criterion must be fulfilled. Our patient fulfilled criteria (i) and (iv).

Despite of higher prevalence of tuberculosis in women of child bearing age group, congenital tuberculosis remains uncommon. It may be because of (i) under reporting of the cases (ii) most of the deliveries are conducted at home in developing world (iii) late presentation of the babies to the experts and (iv) high rate of infertility in the women suffering from genital tuberculosis (5). Treatment of congenital tuberculosis consists of standard ATT regimes.

Congenital tuberculosis should be included in the Revised National Tuberculosis Programme to improve maternal and infant tuberculosis(5,6).

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