Diagnosis: Congenital Tuberculosis

Diagnosis of tuberculosis in neonates could be challenging, as the signs and symptoms are nonspecific and could be present in other conditions such as toxoplasmosis, rubella, cytomegal virus, herpes simplex (TORCH), sepsis and prematurity.

The most common presentation is hepatosplenomegaly, respiratory distress, fever, and lymphadenopathy (1, 2).

Infants usually develop symptoms in the 2nd or 3rd weeks but they may also manifest it at birth (1).

In this case the infant presented with fever at the first week along with a nonspecific symptoms mimicking bacterial sepsis. Sepsis workup was done and antibiotic therapy was initiated but the patient showed no response to the therapy. In this setting a high index of suspicion for making the diagnosis of tuberculosis was paramount.

In an infant with sepsis symptoms whose response to the therapy is poor, intrauterine infections such as TORCH and congenital tuberculosis, especially in endemic places should be considered.

Mycobacterium cultures and acid fast bacilli (AFB) smears from different sites like gastric fluid, endotereacheal aspiration and tissue biopsies can help to find the tuberculosis lesion in infants.

The other key in diagnosing TB in an infant is the maternal history of tuberculosis. However, in many cases mothers have subclinical tuberculosis which manifests after the disease is observed in the infant. In a review, 24 of 32 mothers of infants with congenital TB were asymptomatic (3).

In this case, the mother was asymptomatic at initial investigations. She lately presented with diarrhea and ascites and her PPD was converted to positive “0 to 15 mm”. Consequently, a peritoneal biopsy was carried out and the pathologic results showed chronic necrotizing granulomatosis and PCR was also positive for *Mycobacterium tuberculosis*.

It was Beitzke who first developed the criteria for distinguishing congenital TB from postnatally acquired TB (4).

Later, Cantwell et al. suggested modified criteria for the diagnosis of congenital TB (5).

The modified criteria includes tuberculosis lesion in infants accompanied with one of the followings:

1) Lesion during the first week of life, 2) A primary hepatic complex or caseating granuloma, 3) Documented tuberculosis infection of placenta or endometrium, and 4) Exclusion of postnatal transmission by through contact tracing.

The diagnosis of congenital tuberculosis in our patient was based on finding a lesion in the first week of life. Development of maternal peritoneal TB confirms the transmission of TB in prenatal period.

These diagnostic criteria emphasize the importance of evaluating the mother of infants with suspected congenital TB.

In conclusion, early diagnosis of congenital TB is highly contributed to the maternal history in countries with high prevalence of TB and it is of great value to screen all suspected pregnant women for tuberculosis. Newborns with sepsis like or TORCH syndrome in endemic countries should also be evaluated for TB.

REFERENCES


