

ABSTRACT

Characteristics of infants exposed to maternal tuberculosis and chemoprophylaxis using three months of isoniazid and rifampicin

Background: Though features of infants with congenital tuberculosis (TB) are known including being low-birth-weight (LBW), features of in-utero TB-exposed infants including non-infected are not well reported. Infants born to TB-infected women are at risk of contracting TB post-delivery, therefore chemoprophylaxis is recommended, and this includes use of isoniazid and rifampicin combination, but little is known about its effectiveness.

Objective: To determine features of in-utero TB-exposed infants and proportion with TB after chemoprophylaxis with isoniazid and rifampicin.

Methods: Retrospective review of records of TB-infected women and their infants, from 2007-2010. Clinical features of mothers and infants at time of delivery; and follow-up of infants after completion of isoniazid and rifampicin are described.

Results: Eighty-eight infants born to 86 women with a diagnosis of TB were studied. TB diagnosis was made peripartum in 24.4% of women, 23.3% had extra-pulmonary TB. Among those diagnosed antepartum 46.2% were on treatment for >2 months. Human immunodeficiency virus (HIV) was positive in 97.7%; with CD4 count <200 cells/mm³ in 74.6%. Eight mothers (9.3%) died before discharge. There were 56 (63.6%) LBW and 45 (51.2%) preterm infants. Culture for acid-fast-bacilli was positive in 4 (4.5%) infants. At 3-months follow-up, 17 (20.2%) defaulted, and among 67 who returned, 7 (10%) did not return for Mantoux test reading, 1/60 (1.7%) had positive Mantoux.

Conclusion: Majority of TB-exposed infants are born to mothers with TB/ HIV co-infection. A high proportion of TB-exposed infants are born preterm and LBW. The high attrition rate made it difficult to assess effectiveness of chemoprophylaxis with isoniazid and rifampicin.

Key words: Tuberculosis; Chemoprophylaxis; Rifampicin; Isoniazid