LTBI Treatment During pregnancy & breastfeeding

Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection

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"Pregnant women should be targeted for tuberculin skin testing only if they have a specific risk factor for LTBI or for progression of LTBI to disease. Although the need for treatment of active TB during pregnancy is unquestioned, the treatment of LTBI in pregnant women is more controversial. Some experts prefer to delay treatment until after delivery because pregnancy itself does not increase the risk of progression to disease, and two studies suggest that women in pregnancy and the early postpartum period may be vulnerable to isoniazid hepatotoxicity (91, 92). However, because conditions that promote hematogenous spread of organisms to the placenta (e.g., recent infection and HIV infection) or progression of LTBI to disease can endanger both the mother and baby (139), many experts agree that pregnant women with these conditions and LTBI should be treated during pregnancy and have careful clinical and laboratory monitoring for hepatitis. The possible risk for isoniazid hepatotoxicity must be weighed against the risk for developing active TB and the consequences to both the mother and her child should active disease develop.

Extensive use of isoniazid during pregnancy has indicated that although it readily crosses the placental barrier, the drug is not teratogenic even when given during the first 4 mo of gestation (140). Regarding rifampin, one study revealed that 3% of 446 fetuses exposed in utero to rifampin had abnormalities (i.e., limb reductions, central nervous system abnormalities, and hypoprothrombinemia) compared with 2% for ethambutol and 1% for both isoniazid and controls (138). Hemorrhagic disease of the newborn has been described following the use of rifampin in the mother (141). However, extensive experience with the use of rifampin to treat TB in pregnant women suggests it is safe in most circumstances. Although pyrazinamide has been used to treat TB in pregnant women, no published data exist concerning the effects of the drug on the fetus. Thus, although pyrazinamide may be considered after the first trimester in women with HIV infection (142), it should otherwise be avoided.

The preferred regimen for treatment of LTBI in pregnant women is isoniazid, administered either daily or twice weekly. Although rifampin is probably safe, no efficacy data support its use. For women at high risk for progression of LTBI to disease, especially those who are infected with HIV or who have been infected recently, initiation of therapy should not be delayed on the basis of pregnancy alone, even during the first trimester. For these women, careful clinical and/or laboratory monitoring for hepatitis should be undertaken. Pregnant women taking isoniazid should receive pyridoxine supplementation.

Toxic effects of antituberculosis drugs delivered in breast milk have not been reported. One study concluded that a breastfeeding infant would develop serum levels of no more than 20% of the usual therapeutic levels of isoniazid for infants and <11% of other antituberculosis drugs (143). Breastfeeding is not contraindicated when the mother is being treated for LTBI. However, infants whose breastfeeding mothers are taking isoniazid should receive supplemental pyridoxine. The amount of isoniazid provided by breast milk is inadequate for treatment of the infant."