

Maternal human immunodeficiency virus-1 infection and pregnancy outcome.

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Date: 1994-04

Abstract

Objectives: To study the impact of maternal human immunodeficiency virus type 1 (HIV-1) infection on pregnancy outcome. **Methods:** Between January 1989 and December 1991, 406 HIV-1-seropositive and 407 HIV-1-seronegative age- and parity-matched pregnant women from Nairobi, Kenya, all at less than 28 weeks' gestation, were recruited into a prospective study of HIV-1 infection in pregnant women and their offspring. Both groups were followed until 6 weeks postpartum. **results:** Three hundred fifteen HIV-1-seropositive women and 311 HIV-1-seronegative controls were followed until delivery. Seropositive women were younger at sexual debut and reported more lifetime partners and more sexually transmitted diseases (STDs) than the seronegative controls. The seropositive women had higher rates of genital ulcer disease (4.7 versus 2.0%; $P = .08$), genital warts (4.9 versus 2.0%; $P = .03$), and positive syphilis serology (7.9 versus 3.2%; $P < .001$), but there were no differences between the groups in isolation rates of *Neisseria gonorrhoeae* (6.8 versus 7.1%) and *Chlamydia trachomatis* (11.5 versus 9.0%). Maternal HIV-1 infection was associated with significantly lower birth weight (2913 versus 3072 g; $P = .0003$) and with prematurity (21.1 versus 9.4%; $P < .0001$), but not with small for gestational age size (4.2 versus 3.2%; $P = .7$). The stillbirth rate was higher in seropositive women, yet not statistically significant (3.8 versus 1.9%; $P = .2$). Women with a CD4 count lower than 30% had a higher risk of preterm delivery (26.3 versus 10.1%; $P < .001$). Postpartum endometritis was more common in HIV-1-infected women than in seronegative controls (10.3 versus 4.2%; $P = .01$) and was inversely correlated with the CD4 percentage. No histopathologic placental abnormalities attributable to HIV-1 were detected. **conclusion:** Maternal HIV-1 infection was significantly associated with prematurity and postpartum endometritis, but not with fetal growth retardation. There was a trend toward a higher stillbirth rate in HIV-1-seropositive mothers.