Abstract

This article aimed to examine the association between maternal and infant HIV infection and low birth weight (LBW <2500 grams). Data from 8563 singleton liveborns in Mombasa, Kenya, were analysed. Maternal HIV infection was found in 14.1% of the women and 9.6% of neonates had a birth weight of <2500 grams. In multivariate analysis, maternal HIV infection was independently associated with LBW (RR=1.46, 95% CI=1.20-1.79, P =0.0002). Maternal age, primiparity, sex of the baby, religion, syphilis infection, anaemia and previous history of stillbirth were also independently associated with LBW (RR: 1.32, 2.19, 1.44, 1.56, 1.61, 1.31 and 1.69, respectively). The rate of intra-uterine HIV transmission was 5.1% and 20.1% of the exposed infants were infected during the intrapartum period. Intrapartum infected infants had a relative risk of LBW of 1.95 (95% CI=1.18-2.87, P <0.01) compared to uninfected children, whereas the birth weight of infants infected in utero was not different from uninfected infants (RR=1.18, 95% CI=0.56-2.60, P=0.630). HIV infected mothers are more likely to have small babies, even after controlling for possible confounding factors. Low birth weight babies were more at risk for peripartum HIV transmission, but further research is needed to study mechanisms of transmission in relation to birth weight.