

Oral presentation

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Primary HIV-1 infection during pregnancy: high rate of HIV-1 MTCT in a cohort of patients in southern Brazil

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Background

Mother to Child HIV-1 Transmission (MTCT) is infrequent among women who receive highly active antiretroviral therapy (HAART) throughout pregnancy [1]. Women who undergo primary HIV-1 infection during pregnancy, however are at high risk of perinatal transmission [2].

Materials and methods

MTCT rates among patients receiving antenatal HAART at our institution were evaluated and compared to MTCT rates among women identified as HIV-1 infected late in pregnancy including women who became HIV-1 seropositive during gestation. Rapid HIV testing of pregnant women was performed on all women admitted in labor to our institution who had negative HIV results > 3 months prior or with unknown HIV-1 serostatus. Neonatal infection was ascertained using RNA and DNA PCR at several time points.

Results

Over two years, deliveries at our institution totalled 11,241 with 318 (2.9%) occurring in HIV-1 infected women. The incidence of HIV-1 seroconversion was 0.8/1,000 (CI 95% 0.4-1.5/1,000). The study population consisted of 256 HIV+ women who delivered at our institution having received prenatal care at our hospital and HAART during pregnancy or were identified as HIV-infected at delivery. Of these, 212 women had infants

with known HIV outcomes. To 168 women on HAART, 142 infants (84%) had diagnosis ascertained: 1 child was HIV-infected (0.6%). Of the remaining, 6 (3.6%) deaths occurred in the neonatal period; 5 (3.0%) women miscarried and 15 (8.9%) infants were lost to follow-up. Eighty-eight women received no antiretroviral treatment being identified as HIV-1 infected at delivery. Infant diagnosis was ascertained in 70 cases. For the remainder, 4 (4.4%) neonatal deaths occurred before diagnosis, 7 (8.0%) women miscarried and 7 (8.0%) infants were lost to follow-up. Of these, 61 had unknown HIV-1 seroconversion time and 9 had proven seroconversion during pregnancy. In women with no treatment and unknown seroconversion time, there were 5/61 transmissions (8.2%) and in those with proven seroconversion 3/9 (33%). No women breastfed.

Conclusions

In southern Brazil, an area of high HIV-1 prevalence, seroconversion during pregnancy is not an unusual phenomenon and is associated with extremely high HIV-1 MTCT rates. Strategies should be implemented for repeat testing of patients later in pregnancy in addition to testing of partners early in pregnancy in order to identify patients at risk of seroconversion.

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