

Poster presentation

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Assessing the emergence of drug resistance in a cohort of HIV infected pregnant women under HAART for prophylaxis of mother-to-child transmission (MTCT) followed in a referral center in Rio de Janeiro, Brazil

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Clinical background

Brazil stands out among developing countries due to its program of universal access to antiretroviral drugs and clinical care exams. According to the national guidelines, women initiating ART during pregnancy for the prevention of MTCT of HIV who do not otherwise meet the requirements for continued receipt of therapy discontinue ART after delivery [1]. There are significant concerns that this strategy could jeopardize future treatment options for these women [2]. The objective of the present study was to evaluate the impact of treatment discontinuation following delivery for the emergence of genotypic resistance.

Patients and methods

Since January 2005, a prospective cohort of HIV infected pregnant women, identified during prenatal care visits have been established at Hospital Geral de Nova Iguaçu, RJ. Antiretroviral prophylaxis with HAART was adopted for the prevention of HIV vertical transmission. Clinical and laboratory parameters, such as flow cytometry for CD4 counts, HIV-RNA levels (Nuclisens, Biomerieux) and genotyping (ViroSeq, Celera-Abbott), were determined at

baseline and follow-up visits (6-8 weeks after HAART, at delivery and postpartum [15 days, 1, 6 and 12 months]).

Results

Until August 2007, 195 women ARV naïve and their babies have been enrolled and followed. Data from the first 120 ARV naïve pregnant women have already been analyzed. The median age was 26 years (SD=6.6); 72% of the women were non white and the median gestational age at prenatal care initiation was 26 weeks (IQR, 20-31). The median CD4 cell count at baseline was 439.5 cells/mm³ (IQR, 300–586) and VL was 3.91 log₁₀ (IQR, 3.22–4.46). 25% of the women received a NVP-based ARV regimen (ZDV, 3TC and NVP) and 75% have received a Nelfinavir based ARV regimen (ZDV, 3TC, and NFV). The median time on ART was 75 days (IQR, 42–107). The median VL reduction between 6-8 weeks following initiation of ART was 2.01 log₁₀ copies/ml. 64.2% (43/67) of women achieved undetectable VL (< 80 copies/ml) and 89.5% (60/67) had less than 1,000 copies/ml at the time of delivery. 76% (56/74) of women had a cesarean section delivery and 24% (18/74) had a vaginal delivery.

Conclusions

No cases of MTCT of HIV been reported so far. Low levels (<5%) of drug resistance have been detected until now at baseline and after ARV. HIV-1 infections were due to subtypes B (78%), F (8%) and BF (10%), BD (3%) and BC (1%) recombinant viruses. From this naïve cohort, 8.6% (17/194) became pregnant within the first year of follow up after their delivery.

References

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