

Poster presentation

Particular aspects of mother-to-child transmission of HIV infection: single center's 7-year experience in Romania

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Purpose of the study

To assess mother-to-child transmission (MTCT) rate of HIV-1 and to identify the maternal and neonatal associated risk factors.

Methods

Retrospective study on 67 infants born to 62 HIV-1 infected mothers admitted in Victor Babes Hospital Bucharest between January 2000 and June 2008. Factors examined were: epidemiological aspects, antiretroviral therapy (ART) during pregnancy, maternal CD4 cell count, HIV-RNA level, mode of delivery, gestational age and type of feeding. Statistical analysis was performed using linear regression and chi-squared test.

Summary of results

The overall MTCT rate was 26.8% (18/67) [confidence interval (CI) 18.4–40.6]. Mothers had a median age of 23 (range 14–36 years) but 13 (21%) of them, who were born between 1997–1990 and acquired HIV infection by parenteral mode, were adolescents (median age 17 years). HIV serostatus was known before pregnancy only in 51.6% cases (32/62).

The proportion of women receiving antenatal ART increased from 10% to 54.5% between 2000–2007 ($p < 0.05$) [CI, 0.75–32.8]. The MTCT declined from 50% in 2000 to 0% in 2007 ($p < 0.001$). In 28 mother-child pairs with complete ART prophylaxis, MTCT rate was 0% and was not influenced by the mode of delivery. At delivery, mothers' CD4 median value was 516/cmm and the mean HIV viral load was 2.3 log₁₀. The women without ART

prophylaxis had a MTCT rate of 52.9% (18/34) [CI, 31.9–63.1] and most of them (30; 88%) were diagnosed after delivery. Among the 18 perinatal HIV-infected infants, four were diagnosed in the first days of life and 14 were diagnosed after birth at a median age of 5 months (range 1–24 months). Most of them (14; 68%) were delivered by vaginal route, three (16%) prematurely, and 13 (58%) were breastfed.

Conclusion

There was no perinatal HIV transmission in the mother-child pairs with complete prophylaxis. The lack of HIV diagnosis in pregnant women was the major risk of MTCT especially in the first years of the study period. Breastfeeding and vaginal delivery increased the risk of perinatal HIV transmission in the group of untreated mothers. The number of pregnancies in women who acquired HIV infection in the early childhood by parenteral route is increasing in the last years and this will be a major concern for us in the future.