

**Mother-To-Child Transmission of SIV is Rare in Naturally Infected Sooty Mangabeys**

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Mother-to-child transmission (MTCT) of HIV-1 occurs in utero, intrapartum, and through breastfeeding, with a cumulative rate of transmission of 35-50%. As a result, approximately 200,000 children become infected each year, mostly in Sub-Saharan Africa. In this study, we longitudinally test for anti-SIV antibodies to assess the rates of MTCT in a colony of naturally SIV-infected sooty mangabeys (SMs) housed at the Yerkes National Primate Research Center in accordance to Emory University IACUC approved procedures. Of note, these SIV-infected animals do not progress to AIDS despite chronically high viremia. We examined 162 SMs born to SIV-infected mothers that were tested for SIV during the first and second year of life, thus allowing a comprehensive assessment of their infectious status. We found that 147 of these animals (90.7%) were not infected through MTCT. The remaining 15 SMs (9.3%) had consecutive positive tests in the 1st and 2nd year of life and thus might have been infected vertically. These results indicate that MTCT is less frequent in SIV-infected SMs than in HIV-1-infected humans, thus consistent with similar observations made in other natural SIV hosts such as mandrills and African green monkeys. Evolutionary pressure to reduce MTCT in natural SIV hosts may have played a role in the virus-host adaptation that led to a benign course of infection. The maintenance of the Yerkes sooty mangabey colony conforms to Emory IACUC approved management procedures. This study was supported by NIH grant RR-00165 to the Yerkes Center.

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