

Clinical and Virologic Manifestations of Primary Epstein-Barr Virus (EBV) Infection in Kenyan Infants Born to HIV-Infected Women

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Abstract:

Human Background. immunodeficiency virus (HIV) infection is a risk factor for Epstein-Barr virus (EBV)-associated lymphomas. Characterizing primary infection may To describe clinical and elucidate risk factors for malignancy. Methods. virologic manifestations of primary EBV infection among infants born to HIV-infected women, specimens were utilized from a cohort study conducted in Nairobi, Kenya. HIV and EBV viral loads were measured serially in plasma. EBV serology was performed on EBV DNA-negative infants. Monthly clinical examinations were performed by pediatricians. The probability of EBV infection by 1 year of age was .78 (95% Results. CI, .67-.88) in HIV-infected and .49 (95% CI, .35-.65) in HIV-uninfected infants (P < .0001). At 2 years, probability of EBV infection was .96 (95% CI, .89-.99) in HIV-infected infants. Peak EBV loads were higher in HIV-infected versus HIV-uninfected infants (median 2.6 vs 2.1 log₁₀ copies/mL; P < .0001). The majority of HIV-infected infants had detectable EBV DNA for >3 months (79%). Primary EBV infection was associated with cough, fever, otitis media, pneumonia, hepatomegaly, splenomegaly, and hospitalization in HIV-infected infants; conjunctivitis and rhinorrhea in HIV-uninfected infants. EBV infection occurs early in infants born to HIV-infected Conclusions. women. HIV infection was associated with more frequent and higher quantity EBV DNA detection.