

Analysis of false positive HIV-1 serologic testing in Kenya

Abstract:

Sera of 95 mothers and 129 children from Nairobi, Kenya, collected in 1976, and of 466 adults and 193 children of Embu District, Kenya, collected in 1984 and 1985, were analyzed for the presence of human immunodeficiency virus type 1 (HIV-1) antibodies. Although no HIV-1 seropositivity was demonstrated by western blot analysis in both study groups, 7% of Nairobi mothers and 10% of adult females from Embu District had false positive results by enzyme immunoassay (EIA) compared with less than 1% seroreactivity rates observed in adult males and children. False positive results were not due to simian T lymphotropic virus type III (STLV-IIIAGM)/human T lymphotropic virus type IV (HTLV-IV) seropositivity. Sixty-one percent of the HIV-1 EIA reactive sera could not be explained by cytotoxic activity to lymphocytes bearing the HLA-DR4 or HLA-DQw3 phenotype. We conclude that false positive HIV EIA tests are frequently encountered in East Africa. Seroprevalence rates in rural Africa must be interpreted with caution due to the decreased specificity of HIV EIAs.