

Early measles in infants of human immunodeficiency virus type 1- seropositive mothers

Embree, JE; Datta, P; Stackiw, W; Sekla, L; Braddick, M; Kreiss, JK; Pamba, H; Wamola, I; Ndinya-Achola, JO; Law, BJ

Abstract:

An increase in illness due to measles is one of the potential consequences of the human immunodeficiency virus (HIV) epidemic in Africa. During a study of perinatal HIV transmission conducted in Kenya, the risk of acquiring measles before vaccination (9 months of age) was found to be 3.8 times higher in infants born to HIV-seropositive mothers than in control infants (10 [9%] of 109 vs. 5 [3%] of 194 infants; $P = .02$; odds ratio, 3.8; 95% confidence interval, 1.2-13.2). The majority of infants who developed measles in this study had significant sequelae related to their measles infection. The increased risk of measles appeared to be related to relatively lower anti-measles antibody titers detected in cord blood samples of affected infants born to HIV-seropositive mothers. However, 94% of all infants were susceptible to measles on the basis of ELISA testing at age 6 months regardless of maternal HIV serology. These observations highlight the need for improved measles vaccination strategies in Africa and for studies to delineate the effects of HIV infection on the incidence, presentation, and sequelae of childhood infectious illnesses.