Morbidity among HIV-1-infected mothers in Kenya: prevalence and correlates of illness during 2-year postpartum follow-up.

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Abstract

BACKGROUND:

Much of the burden of morbidity affecting women of childbearing age in sub-Saharan Africa occurs in the context of HIV-1 infection. Understanding patterns of illness and determinants of disease in HIV-1-infected mothers may guide effective interventions to improve maternal health in this setting.

METHODS:

We describe the incidence and cofactors of comorbidities affecting peripartum and postpartum HIV-1-infected women in Kenya. Women were evaluated by clinical examination and standardized questionnaires during pregnancy and for up to 2 years after delivery.

RESULTS:

Five hundred thirty-five women were enrolled in the cohort (median CD4 count of 433 cells/mm) and accrued 7736 person-months of follow-up. During 1-year follow-up, the incidence of upper respiratory tract infections was 161 per 100 person-years, incidence of pneumonia was 33 per 100 person-years, incidence of tuberculosis (TB) was 11 per 100 person-years, and incidence of diarrhea was 63 per 100 person-years. Immunosuppression and HIV-1 RNA levels were predictive for pneumonia, oral thrush, and TB but not for diarrhea; CD4 counts <200 cells/mm(3) were associated with pneumonia (relative risk [RR] = 2.87, 95% confidence interval [CI]: 1.71 to 4.83), TB (RR = 7.14, 95% CI: 2.93 to 17.40) and thrush. The risk of diarrhea was significantly associated with crowding (RR = 1.86, 95% CI: 1.19 to 2.92) and breast-feeding (RR = 1.71, 95% CI: 1.19 to 2.44). Less than 10% of women reported hospitalization during 2-year follow-up; mortality risk in the cohort was 1.9% and 4.8% for 1 and 2 years, respectively.

CONCLUSIONS:

Mothers with HIV-1, although generally healthy, have substantial morbidity as a result of common infections, some of which are predicted by immune status or by socioeconomic factors. Enhanced attention to maternal health is increasingly important as HIV-1-infected mothers transition from programs targeting the prevention of mother-to-child transmission to HIV care clinic