

Abstract

BACKGROUND:

Changes in sexual risk behaviour may occur following HIV-1 infection.

OBJECTIVE:

To test the hypothesis that HIV-1 seroconversion and disease progression are associated with changes in risk behaviours, using data from a cohort of Kenyan female sex workers (FSWs).

METHODS:

HIV-1-seronegative FSWs were enrolled in a prospective cohort study of risk factors for HIV-1 acquisition. At monthly visits, standardized interviews were conducted to assess sexual risk behaviour and HIV-1 serologic testing was performed. Seroconverters were invited to continue with follow-up. Between 1993 and 2004 (when antiretroviral therapy was introduced in the cohort), 265 women seroconverted for HIV-1 (incidence 7.7/100 person-years) and were included in this analysis.

RESULTS:

Unprotected intercourse was reported at 546/2037 (27%) pre-seroconversion visits versus 557/3732 (15%) post-seroconversion visits ($P < 0.001$). These findings remained significant after adjustment for potential confounding factors [adjusted odds ratio (AOR) 0.69; 95% confidence interval (CI), 0.55-0.86]. Compared with HIV-1-seronegative women, there was a progressive stepwise decrease in unprotected intercourse among HIV-1-seropositive women with CD4 cell counts $> \text{ or } = 500$ (AOR, 0.93; 95% CI, 0.62-1.39), 200-499 (AOR, 0.58; 95% CI, 0.41-0.82) and < 200 cells/ μmol (AOR, 0.45; 95% CI, 0.25-0.82). Decreases in unprotected intercourse reflected increases in both abstinence and 100% condom use. Women also reported fewer partners and fewer episodes of intercourse after HIV-1 seroconversion.

CONCLUSIONS:

HIV-1 seroconversion and disease progression were associated with decreases in sexual risk behaviour among Kenyan FSWs.