

Abstract

BACKGROUND: For HIV-1-infected women, hormonal contraception prevents unintended pregnancy, excess maternal morbidity, and vertical HIV-1 transmission. Hormonal contraceptives are widely used but their effects on HIV-1 disease progression are unclear.

METHODS: In a prospective study among 2269 chronically HIV-1-infected women from seven countries in eastern and southern Africa and with enrollment CD4 cell counts at least 250cells/ μ l, we compared rates of HIV-1 disease progression among those using and not using hormonal contraception (i.e. oral or injectable methods). The primary outcome was a composite endpoint of CD4 decline to less than 200cells/ μ l, initiation of antiretroviral therapy, or death.

RESULTS: Three hundred and seventy-two women experienced HIV-1 disease progression during 3242 years of follow-up (incidence rate=11.5 events per 100 person-years). Rates of HIV-1 disease progression among women who were currently using and not using hormonal contraception were 8.54 and 12.31 per 100 person-years, respectively (adjusted hazard ratio 0.74, 95% confidence interval 0.56-0.98, P=0.04). Rates were 8.58 and 8.39 per 100 person-years for the subsets using injectable and oral contraception (adjusted hazard ratio=0.72, P=0.04 for injectable users and adjusted hazard ratio=0.83, P=0.5 for oral users compared to women not using hormonal contraception). Sensitivity analyses assessing enrollment or cumulative contraceptive use during the study demonstrated risk estimates closer to 1.0 with no evidence for accelerated disease progression. **CONCLUSION:** Among African women with chronic HIV-1 infection, use of hormonal contraception was not associated with deleterious consequences for HIV-1 disease progression.