

Abstract:

Background. The synergy between herpes simplex virus type 2 (HSV-2) and human immunodeficiency virus type 1 (HIV-1) is well known, but lack of knowledge about the epidemiology of HSV-2 acquisition in HIV-1-discordant couples hampers development of HSV-2 prevention interventions that could reduce HIV-1 transmission.**Methods.** HIV-1-discordant couples were enrolled in Nairobi, Kenya, and followed for up to 2 years. HSV-2 status was determined using HerpeSelect HSV-2 ELISA. Correlates of prevalence and incidence were assessed.**Results.** Of 469 HIV-1-discordant couples, at baseline, 353 (75.3%) were affected by HSV-2, of which 189 (53.5%) were concordantly HSV-2 seropositive and 164 (46.5%) were HSV-2-discordant. Prevalence was lowest among HIV-1-uninfected men (39.9%) compared to HIV-1-infected women (64.8%), HIV-1-infected men (66.7%), and HIV-1-uninfected women (68.5%). During follow-up, HSV-2 seroincidence was 14.9 per 100 person-years. Incidence was 1.6-fold higher among females compared to males (95% confidence interval [CI], 1.00-2.48) and 2.5-fold higher in HIV-1-infected compared to uninfected women (95% CI, 1.12-5.74). At least 30% of incident HSV-2 infections originated from an outside partner.**Conclusions.** The high HSV-2 prevalence and incidence in HIV-1-discordant couples in sub-Saharan Africa suggest HSV-2 treatment and prevention could be an effective targeted strategy to reduce HSV-2 and HIV-1 transmission in this high-risk population.