

Use among STD clinic attenders in Nairobi: association with HIV-1 and circumcision status.

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Abstract:

In previous studies, genital ulcers in men have been found to be associated with increased risk of HIV-1 seroconversion. To further explore this association male patients attending a sexually transmitted disease (STD) clinic in Nairobi for either urethritis (controls, $n = 276$) or a genital ulcer (cases, $n = 607$) were compared with respect to sexual behaviour, presence of HIV-1 antibody and circumcision status. Patients were followed to study risk factors for incident genital ulcers and HIV-1 seroconversion. At entry, being married was associated with higher prevalence of HIV-1 (OR = 1.76) and genital ulcers (OR = 1.42). Lack of circumcision was associated with both HIV-1 infection (OR = 4.67) and the presence of a genital ulcer (OR = 2.23). Genital ulcers were also associated with HIV-1 infection (OR = 1.87) independent of circumcision status. On follow-up, HIV-1 seropositivity was associated with incident genital ulcers. It is argued that the association between genital ulcers and HIV-1 infection may be more complex than ulcers simply being a risk factor for HIV-1 infection, and that HIV-1 infection may either increase the risk of acquiring a genital ulcer, or HIV-1 infection and genital ulcers may have some unknown risk factor in common.

PIP: Male patients (mean age, 28 years) attending a sexually transmitted disease clinic in Nairobi, Kenya, for either urethritis (276 controls) or a genital ulcer (607 cases) were compared with respect to sexual behavior, presence of HIV-1 antibody, and circumcision status. Only 164 men were not circumcised. Circumcised men reported more life-time sex partners than uncircumcised men (19 vs. 10, $p 0.01$). Patients were followed up for 196 days to explore the risk factors for incident genital ulcers and HIV-1 seroconversion. On average, 2.66 follow-up visits per patient were recorded. 28 men seroconverted to HIV-1 during follow-up. 61% of the ulcer patients reported sex workers as the likely source of their infection, whereas 58% of the urethritis patients did so. Multiple logistic regression variables of marital status, age, and genital ulcer in the past were used to examine the relationship among these variables. Ulcer in the past was a significant predictor of a current ulcer ($p 0.01$) and higher age was significantly associated with HIV-1 seropositivity ($p 0.01$). At entry, being married was associated with higher prevalence of HIV-1 (odds ratio [OR] = 1.76) and genital ulcers (OR = 1.42). Lack of circumcision was associated with both HIV-1 infection (OR = 4.67) and the presence of a genital ulcer (OR = 2.3). 68 men acquired a new ulcer during follow-up. HIV-1 seropositivity at enrolment was significantly associated with genital ulcer reinfection (relative risk = 3.63 by Cox's regression). Genital ulcers were also associated with HIV-1 infection (OR = 1.87) independent of circumcision status. On follow-up, HIV-1 seropositivity was associated with incident genital ulcers. The association between genital ulcers and HIV-1 infection may be more complex than ulcers' simply being a risk factor for HIV-1 infection: either HIV-1 infection may increase the risk of acquiring a genital ulcer or HIV-1 infection and genital ulcers may have some unknown risk factor in common



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