18th ISSTDR, London, 2009

Abstract

Prospective study of anogenital warts, HIV infection and immunosuppression in a cohort of high-risk women in Burkina Faso

A. Low [1], T. Clayton[1], I. Konate[2], N. Nagot[3], A. Ouedraogo[2], C. Huet[2], M. Segondy[3], P. Van de Perre[3], P. Mayaud[1]

[1] *London School of Hygiene & Tropical Medicine, London, UK*
[2] *Centre Muraz, Bobo-Dioulasso, Burkina Faso*
[3] *CHU Montpellier, Montpellier, France*

Background Prospective data on the epidemiology of anogenital warts (GW) in relation to HIV are lacking in Africa.

Methods 765 high-risk women were followed at 4 monthly intervals for 27 months in Bobo-Dioulasso, Burkina Faso. Associations of HIV-1 status (including CD4 count) and other potential risk factors with GW were assessed both at enrolment and throughout follow-up. We used Poisson regression and survival analysis techniques to identify factors associated with prevalent and incident GW.

Results At enrolment, GW prevalence was 1.6% (8/492) among HIV seronegative, and 6.6% (18/273) among HIV-1 seropositive women (p<0.001). There were no cases of prevalent GW among women taking HAART (n=26). Over time, 42 women (5.5%) experienced at least one episode of incident GW. GW incidence was 1.0 per 100 person-years (py) among HIV negative women, 8.3 per 100 py among HIV-1 positive women with a CD4 count >200 cells/µl and 15.6 per 100 py among HIV-1 positive women with a CD4 count ≤200 cells/µl (p_{trend}<0.001). Incidence was 3.6 per 100 py for women on HAART.

At baseline, prevalent GW were strongly associated with smoking (adjusted OR 4.78, 95% CI 1.53–14.97; p=0.007). During follow-up, being HIV-1 infected with baseline CD4 ≤200 cells/µl was the factor most strongly associated with incident GW (adjusted incidence rate ratio [aIRR] 11.82, 95% CI 3.74–37.38; p<0.001). Concurrent bacterial vaginosis (aIRR 2.38, 95% CI 1.35–4.19; p=0.003), and genital ulceration (aIRR 3.34, 95% CI 1.49–7.49; p=0.003) were also associated with incident GW. There was weak evidence that concurrent HAART was protective against incident GW (aIRR 0.50, 95% CI 0.19–1.29; p=0.15).

Conclusions Genital warts occur much more frequently among HIV-1 infected women, particularly those with lower CD4 counts. HAART may be protective against GW.