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Abstract (publication only)

**Factors associated with syphilis among HIV-infected men who have sex with men in Taiwan**

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**Objectives** Little is known with respect to the factors associated with syphilis among HIV-infected men who have sex with men (MSM) with access to highly active antiretroviral therapy (HAART) in Taiwan, where MSM has become the leading risk group for HIV transmission after control of an HIV outbreak among injecting drug users. We aimed to investigate the factors associated with syphilis in HIV-infected MSM who sought HIV care at a university hospital in Taiwan. **Methods** From Mar. to Oct. 2011, MSM who attended the HIV clinics at a university hospital were invited to participate in the study. A self-administered questionnaire interview was conducted to collect information on socio-demographic characteristics, immunologic and virologic status, sexual partners and patterns of sexual behavior, frequency of condom use, and use of recreational drugs. Serologic tests for hepatitis B and hepatitis C virus and polymerase-chain reaction assays for *Chlamydia trachomatis* and *Neisseria gonorrhoeae* of urine specimens were determined. **Results** During the study period, 310 HIV-infected MSM with a mean age of 35.5 years were enrolled, in whom 82.6% (n=255) were sexually active and 37.4% (116) used recreational drugs in the past 6 months. Of the participants, 80% were receiving HAART, CD4 T-cell count greater than 500 cells/mm<sup>3</sup> was noted in 51.2% at enrollment, and plasma HIV RNA load less than 40 copies/ml in 64.4%. Syphilis was reported in 46.5% (144/310) of the participants after HIV infection was diagnosed and 37.5% (112/299) had serologic evidence of syphilis within one year before enrollment. The prevalence of chronic HBV infection and seropositivity for hepatitis C virus was 17.6% and 5.3%, while that for *C. trachomatis* and *N. gonorrhoeae* was 8.5% and 3.8% of 106 participants who submitted urine specimens. In multivariate logistic regression analysis limited to those who were on HAART indicated that higher CD4 counts (OR, 1.17; 95% CI, 1.02-1.34), lower education achievement (OR, 1.95; 95% CI 1.05-3.63), serosorting (OR, 3.32; 95% CI, 1.04-10.63), and use of recreational drugs (OR, 2.55; 95% CI, 1.26-5.13) were associated with syphilis. **Conclusions** Improved immune status, lower educational achievement, serosorting, and use of recreational drugs were associated with syphilis among HIV-infected MSM who were receiving HAART. These findings suggest that client-specific counseling is needed to be strengthened to reduce risks for syphilis among HIV-infected MSM in Taiwan.