

# Study shows suppressing herpes virus may reduce infectiousness of HIV

15 November 2007

A recent study of men co-infected with herpes simplex virus type 2 (HSV-2) and HIV revealed that drugs used to suppress HSV decrease the levels of HIV in the blood and rectal secretions, which may make patients less likely to transmit the virus. This study is published in the November 15 issue of the *Journal of Infectious Diseases*.

Most HIV-infected persons are also infected with HSV-2, which is the major cause of genital herpes. Prior studies demonstrated that the risk of passing HIV to a sexual partner is greater when the HIV-infected person has genital ulcers caused by HSV. Previous studies among HIV/HSV-2 co-infected persons and test-tube research have also demonstrated that HIV levels are increased during genital HSV reactivation.

In a pilot study of the effect of HSV-2 suppression on levels of HIV infectiousness, Connie Celum, MD, MPH, Richard Zuckerman, MD, MPH, and a team of researchers at the University of Washington and the research organization Impacta, in Lima, Peru performed a randomized, placebo-controlled cross-over study of daily HSV suppressive treatment in a small group of HIV/HSV-2 co-infected men who have sex with men.

Twenty men aged 22 to 41 enrolled in this trial, which took place in Peru. The men studied had no prior antiretroviral therapy and were not currently receiving antiretroviral therapy for HIV infection. Subjects were randomly assigned to the anti-HSV drug, valacyclovir 500 mg, twice daily or matching placebo for initial treatment. After eight weeks, subjects had a "washout period" in which they received twice daily placebo. Subjects then crossed over to the alternative treatment (placebo or valacyclovir) for eight weeks. Participants visited the clinic three times a week during each treatment arm. At each visit, rectal secretions were collected and weekly blood samples were obtained to determine levels of HIV.

Dr. Celum and her team of researchers found significantly reduced levels of HIV in blood by about 50 percent and rectal secretions by about 30 percent during the 8 weeks when the HIV/HSV-2 co-infected men received valacyclovir to suppress reactivation of HSV. This reduction in HIV levels could have a significant impact on transmission of HIV. Since the only intervention was daily valacyclovir to suppress HSV, this study adds weight to the other evidence that HSV-2 reactivation increases HIV replication. According to the researchers, additional "ongoing randomized trials will answer whether HSV suppression can reduce HIV transmission and address the potential for HSV suppression to delay anti-HIV therapy (antiretroviral) initiation."

Source: Infectious Diseases Society of America

APA citation: Study shows suppressing herpes virus may reduce infectiousness of HIV (2007, November 15) retrieved 2 August 2022 from <https://medicalxpress.com/news/2007-11-suppressing-herpes-virus-infectiousness-hiv.html>

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