

## **Genital ulceration does not increase HIV-1 shedding in cervical or vaginal secretions of women taking antiretroviral therapy.**

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### **Author information**

#### **Abstract**

##### **OBJECTIVES:**

Genital ulcer disease (GUD) is associated with increased HIV-1-RNA shedding in antiretroviral therapy (ART)-naive women. The effect of GUD on HIV-1 shedding among ART-treated women is not known. The objective of this study was to test the hypothesis that genital ulcerations increase genital HIV-1-RNA shedding in women receiving ART.

##### **METHODS:**

Eligible women initiated ART and attended monthly visits with inspection for genital lesions and collection of genital swabs. GUD cases diagnosed after 2 months or more on ART were included for analysis and served as their own controls. HIV-1 RNA was quantitated in specimens collected before, during and after GUD for all cases. The lower limit of quantitation was 100 HIV-1-RNA copies/swab. Using the pre-GUD visit as the reference, the detection of genital HIV-1 RNA before versus during and after GUD episodes was compared.

##### **RESULTS:**

36 women had GUD episodes after ART initiation. HIV-1 RNA was detected before, during and after GUD in cervical secretions from four (11%), one (3%) and six (17%) women, respectively, and in vaginal secretions from three (8%), four (11%) and four (11%) women, respectively. After adjustment for time on ART, there was no difference in the detection of cervical HIV-1 RNA before versus during GUD (adjusted OR 0.22, 95% CI 0.04 to 1.23). Likewise, GUD did not increase HIV-1 detection in vaginal secretions (adjusted OR 1.32, 95% CI 0.29 to 5.92).

##### **CONCLUSIONS:**

GUD did not significantly increase cervical or vaginal HIV-1 shedding. The results suggest that ART maintains its effectiveness for genital HIV-1 suppression despite GUD episodes.