

# **Cervical Shedding Of Herpes Simplex Virus And Cytomegalovirus Throughout The Menstrual Cycle In Women Infected With Human Immunodeficiency Virus Type 1**

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## **Abstract:**

**OBJECTIVE:** Our purpose was to evaluate the frequency and patterns of the shedding of herpes simplex virus and cytomegalovirus in the female genital tract throughout the menstrual cycle. **STUDY DESIGN:** Seventeen women, all seropositive for herpes simplex virus types 1 and 2, cytomegalovirus, and human immunodeficiency virus type 1, underwent daily evaluation of cervical viral shedding for the duration of 1 menstrual cycle (21-31 visits per woman). Serum estradiol and progesterone levels were monitored 3 times weekly. **RESULTS:** Overall, herpes simplex virus deoxyribonucleic acid was detected in 43 (10%) of 450 cervical swabs, and cytomegalovirus deoxyribonucleic acid was detected in 232 (52%) of 450 cervical swabs. For individual women there was considerable variability in the percentage of days on which virus was detected, ranging from 0% to 33% for herpes simplex virus and from 20% to 97% for cytomegalovirus. Shedding of herpes simplex virus did not vary significantly with menstrual cycle; however, shedding of cytomegalovirus was significantly more frequent in the luteal phase (odds ratio, 1.9; 95% confidence interval, 1.1-3.4). A CD4(+) lymphocyte count <200/microL was associated with increased frequency of the detection of herpes simplex virus (odds ratio, 5.7; 95% confidence interval, 1.1-29.4). **CONCLUSIONS:** Asymptomatic cervical shedding of both herpes simplex virus and cytomegalovirus occurs very frequently in women infected with human immunodeficiency virus type 1. The risk of transmitting these viruses to sexual partners and neonates may be higher than previously recognized.