Cervical shedding of herpes simplex virus in human immunodeficiency virus-infected women: effects of hormonal contraception, pregnancy, and vitamin A deficiency.

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Abstract

Genital shedding of herpes simplex virus (HSV) results in frequent transmission of infection to sexual partners and neonates. In a cross-sectional study, cervical shedding of HSV DNA was detected in 43 (17%) cervical swab samples from 273 women seropositive for HSV-1, HSV-2, and human immunodeficiency virus type 1 (HIV-1). Cervical shedding of HSV was significantly associated with oral contraception (adjusted odds ratio [aOR], 4.5; 95% confidence interval [CI], 1.7-12.2), use of depo-medroxyprogesterone acetate (aOR, 3.2; 95% CI, 1.3-7.7), and pregnancy (aOR, 7.9; 95% CI, 2.0-31.7). In the subgroup of women who were not pregnant and not using hormonal contraception (n=178), serum vitamin A was highly predictive of cervical HSV shedding: concentrations indicating severe deficiency, moderate deficiency, low-normal, and high-normal status were associated with 29%, 18%, 8%, and 2% prevalences of cervical HSV shedding, respectively (linear trend, P=.0002). Several factors appear to influence HSV reactivation in HIV-1 seropositive women.

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