Abstracts of current literature on epidemiology, diagnosis, and treatment

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RISK OF HIV INFECTION IN PERSONS SEROPOSITIVE FOR HERPES SIMPLEX VIRUS, TYPE 2

A systematic review of literature and data synthesis were performed to evaluate the effect of herpes simplex virus, type 2 (HSV-2) infection on the risk for acquiring HIV infection. In 9 cohort and nested case-control studies (N = 31) demonstrating that HSV-2 infection preceded HIV infection, the relative risk was 2.1. Case-control and cross-sectional studies in developing countries yielded a higher estimate of relative risk (odds ratio, 4.6) than did those in developed countries (odds ratio, 2.9). The risk for HIV infection in HSV-2–seropositive persons was significantly increased in all populations studied. Results showed that 52% of sexually transmitted HIV infections are attributable to HSV-2 infection among persons seropositive for HSV-2. In the general US population, HSV-2 seroprevalence is 22%; therefore, 19% of sexually transmitted HIV infections can be attributed to HSV-2. Among African Americans or homosexual men in the United States, HSV-2 seroprevalence is 50%; therefore, 35% of HIV infections can be attributed to HSV-2. Among commercial sex workers, seroprevalence of HSV-2 often exceeds 80%; at least 47% of HIV infections in this population are attributable to HSV-2. The researchers concluded that HSV-2 infection is a significant risk factor for HIV infection and that control of HSV-2 should become part of the strategy of HIV prevention.

Wald A, Link K. Risk of human immunodeficiency virus infection in herpes simplex virus type 2–seropositive persons: a meta-analysis. J Infect Dis 2002;185:45–52.

ANEMIA AND MORTALITY IN WOMEN WITH AND WITHOUT HIV

A multicenter, longitudinal study was conducted to determine the prevalence, incidence, and risk factors for anemia and whether anemia is a risk factor for mortality among HIV-infected women. Study participants were 797 HIV-positive and 389 HIV-negative women between age 16 and 55 years who reported either sexual contact or injection drug use since 1985 and, for HIV-positive women, gave no history of an AIDS-defining illness. Every 6 months, participants visited an urban study clinic for a physical examination, complete blood count, and T cell subset studies, making at least 2 follow-up visits. On enrollment, prevalence of anemia among HIV-positive women was 28.1% and among HIV-negative women was 15.1%. During a follow-up period, cumulative incidence of anemia in HIV-positive and HIV-negative women was 74% and 48%, respectively. The following risk factors for anemia were determined: increasing age, African American race, CD4+ lymphocyte count less than 200 cells/µL, zidovudine use, history of fever, weight loss, diarrhea, oral candidiasis, *Mycobacterium avium* complex infection, bacterial pneumonia, and *Pneumocystis carinii* pneumonia. Among HIV-positive women, the mortality rate during follow-up was 37% in those who were anemic and 22% in those who were not anemic at enrollment. Researchers concluded that the risk of anemia is higher with more advanced HIV infection and that anemia is associated with increased risk of death in HIV-positive women.

Semba RD, Shah N, Klein RS, et al. Prevalence and cumulative incidence of and risk factors for anemia in a multicenter cohort study of human immunodeficiency virus–infected and –uninfected women. Clin Infect Dis 2002;34:260–6.

HELICOBACTER PYLORI INFECTION AND NONSTEROIDAL ANTI-INFLAMMATORY DRUGS IN PEPTIC ULCER DISEASE

A meta-analysis of published studies was performed to assess the relationship between *Helicobacter pylori* infection and the use of nonsteroidal anti-inflammatory drugs (NSAIDs) in the pathogenesis of peptic ulcer disease. Of 463 studies found, 25 met inclusion criteria. In 16 studies of 1625 patients taking NSAIDs, the pooled frequency of peptic ulcer disease was significantly higher in *H. pylori*–positive versus *H. pylori*–negative patients (41.7% vs 25.9%). In 5 controlled studies comparing the frequency of peptic ulcer disease in NSAID takers and nontakers, peptic ulcer disease was significantly more common in NSAID takers than in control subjects (35.8% vs 8.3%), regardless of *H. pylori* infection. In patients with *H. pylori* infection, NSAID use increased the risk of peptic ulcer disease 3.55-fold, and in patients taking NSAIDs, *H. pylori* infection increased the risk of peptic ulcer disease 3.53-fold. However, when NSAID takers with *H. pylori* infection were compared with control subjects without the infection, the risk for peptic ulcer disease increased to 61.1. Independently, *H. pylori* infection and NSAID use increased the risk for ulcer bleeding 1.79-fold and 4.85-fold, respectively. However, the risk of bleeding increased to 6.13 with both factors present. Researchers concluded that *H. pylori* infection and NSAID use independently and significantly increase the risk of peptic ulcer and ulcer bleeding.

Huang J-Q, Sridhar S, Hunt RH. Role of Helicobacter pylori *infection and non-steroidal anti-inflammatory drugs in peptic-ulcer disease: a meta-analysis. Lancet 2002;359:14–22.*

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