Abstracts of current literature on epidemiology, diagnosis, and treatment

Series Editor: Jihad Slim, MD

EARLY THERAPY WITH HYDROXYUREA, DIDANOSINE, AND A PROTEASE INHIBITOR

Patients (n = 10) with a 1-year or shorter history of HIV infection were placed on a drug regimen of hydroxyurea, didanosine, and indinavir prior to complete Western blot (WB) seroconversion; the effect of early initiation of treatment was analyzed. After 46 ± 21 weeks of therapy, changes in CD4 and CD8 cell count and the CD4/CD8 ratio were +154, -544, and +0.46, respectively. HIV was below the level of detection in the plasma. Complete WB seroconversion eventually developed in most patients; however, overall progression of WB seroconversion was very slow. Blood from six of the 10 patients was examined to determine if the early treatment regimen confined the size of the HIV reservoir. An ultrasensitive assay detected low levels of the virus in five patients; no HIV was isolated in the sixth patient, even when 37×10^6 cells were analyzed. The study concluded that early treatment may have a major effect on the outcome of HIV infection. Evidence supports that the earliest treatment may lead to the fastest recovery of the naïve cell repertoire and also may limit the establishment and expansion of latent HIV reservoirs.

Lori F, Jessen H, Lieberman J, et al: Treatment of human immunodeficiency virus infection with hydroxyurea, didanosine, and a protease inhibitor before seroconversion is associated with normalized immune parameters and limited viral reservoir. J Infect Dis *1999;180: 1827–1832.*

PREVALENCE OF LOWER GENITAL TRACT INFECTIONS

A longitudinal cohort study assessed the prevalence of lower genital tract infections in HIV-seropositive and high-risk HIV-seronegative women to determine the relationship between lower genital tract infections and HIV serostatus, immunologic status, demographics, and risk factors. HIV-seropositive (n = 851) and HIV-seronegative women (n = 434) with at least one HIV risk behavior and HIV status that was documented within the previous 60 days were included in the study. At 6-month intervals, physical examinations were performed and patients were interviewed regarding their prior 6-month history of reproductive events, contraception, and gynecologic symptoms, illnesses, and procedures. Physical examination included pelvic examination and the collection of blood, urine, and cervicovaginal specimens to assess for the presence of various lower genital tract infections. Results demonstrated that human papilloma virus (HPV) infection was more prevalent among HIV-seropositive women (64%) than HIV-seronegative women (28%). In terms of HIV serostatus, no significant differences in prevalence of bacterial vaginosis, trichomoniasis, syphilis, *Candida trachomatis* infection, candidal vaginitis, or *Neisseria gonorrhoeae* infection were evident. In terms of demographic and behavioral factors, HPV infection was associated with sex for drugs or money; bacterial vaginosis was associated with alcohol use and smoking. Bacterial vaginosis, trichomoniasis, and syphilis were more prevalent among black women than white women. The study concluded that additional studies are necessary to determine whether HIV transmission and acquisition can be reduced by preventing or treating lower genital tract infections.

Cu-Uvin S, Hogan JW, Warren D, et al: Prevalence of lower genital tract infections among human immunodeficiency virus (HIV)–seropositive and high-risk HIV-seronegative women. Clin Infect Dis *1999;29:1145–1150.*

TRIMETHOPRIM-SULFAMETHOXAZOLE RESISTANCE

A serial cross-sectional study examined the development of resistance to trimethoprim-sulfamethoxazole (TMP-SMX) in relation to HIV infection in inpatients and outpatients at San Francisco General Hospital (San Francisco, CA) between 1979 and 1995. Patients whose microbiologic specimens were culture-positive for *Staphylococcus aureus* or one of seven common Enterobacteriaceae genera were included in the study. TMP-SMX resistance was stable (2% to 5.5%) between 1979 and 1986, increased slightly to 7.2% in 1988, and then markedly increased, reaching 20.4% by 1995. The rapid increase in TMP-SMX resistance temporally coincided with an increase in prophylactic TMP-SMX use in San Francisco as measured in the Pulmonary Complications of HIV Infection Study. Between 1988 and 1991, isolates obtained from HIV and non-HIV units had an equivalent and relatively stable prevalence of TMP-SMX resistance. However, prevalence of TMP-SMX resistance in isolates collected from HIV units increased from 6.3% in 1988 to 53% in 1995. Isolates obtained from the non-HIV units demonstrated an increase from 7.3% in 1988 to 17.7% in 1995. In terms of individual genera, isolates from HIV-infected patients demonstrated a significantly higher prevalence of TMP-SMX resistance (eg, TMP-SMX resistance in *S. aureus* increased from 0% to 48% from 1988 to 1995). Although not clearly supported by the data, the study concluded that long-term oral TMP-SMX use in HIV-infected patients is a potential cause of increased TMP-SMX resistance.

Martin JN, Rose DA, Hadley WK, et al: Emergence of trimethoprim-sulfamethoxazole resistance in the AIDS era. J Infect Dis *1999; 180:1809–1818.*

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