

HERPES SIMPLEX VIRUS IN THE RESPIRATORY TRACT OF CRITICALLY ILL PATIENTS

Researchers observed a prospective cohort in order to define risk factors for and clinical features of herpes simplex virus (HSV) in the respiratory tract of critical care patients. All adults (N = 764) admitted to the intensive care unit (ICU) of a university hospital in Antwerp, Belgium, between November 15, 1999 and June 15, 2001 were included and their characteristics (medical and demographic data) were recorded. 169 (22%) patients tested positive (via oropharyngeal swab) for HSV in their upper respiratory tract, with 150 (89%) of these patients testing positive within the first 10 days of ICU admission. Lower respiratory tract samples were obtained from 361 (47%) of all patients; HSV was isolated in 58 (16%) patients of this subgroup. HSV detected in the throat was a risk factor for developing HSV infection in the lower respiratory tract ($P < .001$) and was associated with acute respiratory distress syndrome ($P < .001$) as well as with longer length of stay in the ICU ($P < .001$). HSV reactivation or infection of the upper respiratory tract is frequent among ICU patients and is a risk for transmitting HSV to the lower respiratory tract.

Bruynseels P, Jorens PG, Demey HE, et al. Herpes simplex virus in the respiratory tract of critical care patients: a prospective study. Lancet 2003;362:1536-41.

BRIEF POSTEXPOSURE PROPHYLAXIS TO REDUCE MATERNAL-FETAL HIV TRANSMISSION

The authors investigated whether postexposure prophylaxis with nevirapine (NVP) plus zidovudine (ZDV) given to sub-Saharan African babies reduced mother-to-child HIV transmission better than NVP alone. Between April 2000 and January 2002, the authors enrolled all normal singleton babies (N = 1119) born to Malawian women who were HIV-positive and who presented late for delivery, thus preventing predelivery NVP prophylaxis. The infants were randomly assigned to either NVP alone or to NVP plus ZDV. Both treatments were administered directly after birth, and infant HIV infection was determined at birth and at 6 to 8 weeks postdelivery. Thirteen babies were excluded from the analysis because their mothers' HIV status was not confirmed by ELISA assays. Analysis was by intention to treat. Of the 484 infants who received NVP plus ZDV and were tested at 6 weeks, 74 (15.3%) were HIV positive. Of the 468 infants who received NVP alone and were tested at 6 weeks, 98 (20.9%) were HIV positive ($P = .03$). Of the infants who were HIV negative at baseline, 34 (7.7%) who received NVP plus ZDV and 51 (12.1%) who received NVP alone were HIV positive at follow-up ($P = .03$). NVP plus ZDV had a protective efficacy rate

of 36% in HIV-negative infants, a finding that remained significant after controlling for confounding factors (eg, maternal viral load). Adverse events were mild and similar between both groups. Postexposure prophylaxis with NVP plus ZDV can offer protection against mother-to-child HIV transmission in neonates.

Taha TE, Kumwenda NI, Gibbons A, et al. Short postexposure prophylaxis in newborn infants to reduce mother-to-child transmission of HIV-1: NVAZ randomised clinical trial. Lancet 2003;362:1171-7.

COMBINATION ANTIRETROVIRAL THERAPY AND RISK OF MYOCARDIAL INFARCTION

In order to determine whether antiretroviral therapy (ART) increases the risk of myocardial infarction (MI), investigators collected data on infection with HIV, risk factors for MI, and incidence of MI from a prospective cohort of 23,468 HIV-infected patients between December 1999 and April 2001. Patients were selected from 11 previously established cohorts from Australia, the United States, and 21 countries in Europe. Follow-up data were collected until February 2002. The median age of patients was 39 years, and 24.1% were women. At baseline, 80.8% of patients had taken at least 1 antiretroviral drug and 74.5% were prescribed combination ART. Prevalence of previous cardiovascular disease (CVD) was low (1.5%), although many patients had CVD risk factors (current or previous smoking, 56.2%; diabetes, 2.8%; hypertension, 7.2%; dyslipidemia, 45.9%). During the follow-up period, 126 patients experienced an MI, with 114 infarctions occurring in men. Incidence of MI increased with exposure to combination ART (P for trend, $< .001$). Patients without prior ART exposure had the lowest incidence of MI. Other factors that independently predicted MI included increased age, current or former smoking, previous CVD, and male sex, but not family history of coronary heart disease. Although the absolute event rate of MI was low, combination ART was associated with a 26% relative increase in the rate of MI per year of exposure during the first 4 to 6 years of use. The benefits of combination ART should be considered in conjunction with the risks of MI when considering HIV-infected patients for ART.

Fris-Moller N, Sabin CA, Weber R, et al. Combination antiretroviral therapy and the risk of myocardial infarction. N Engl J Med 2003; 349:1993-2003.

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