Enteric infections and diarrhea in human immunodeficiency virus-infected persons: prospective community-based cohort study. Swiss HIV Cohort Study

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BACKGROUND: Persons infected with human immunodeficiency virus (HIV) are at increased risk for diarrhea and enteric infections. We studied (1) the epidemiology of enteric pathogens associated with diarrhea, (2) the diagnostic yield of stool examination and endoscopic evaluation, (3) risks to develop diarrhea, and (4) the impact of diarrhea on patients' survival. METHODS: A total of 1933 participants in the Swiss HIV Cohort Study were prospectively followed up for a median of 25.5 months. A total of 560 diarrheal episodes were evaluated by standardized stool examination. Endoscopic evaluation was performed in 25% of patients with chronic diarrhea. RESULTS: The incidence of diarrhea was 14.2 per 100 person-years (95% confidence interval, 13.0-15.4). Among patients with CD4 cell counts below 0.05 x 10(9)/L, the probability to develop diarrhea within 1, 2, and 3 years was 48.5%, 74.3%, and 95.6%, respectively. The risk to develop diarrhea was increased among patients with severe immunodeficiency, homosexual men, and patients taking antiretroviral therapy. Pneumocystis carinii chemoprophylaxis did not reduce the risk of diarrhea. Diarrhea was an independent negative predictor of survival. Enteric pathogens were detected in 16.5% of 212 acute diarrheal episodes and in 46% of 348 chronic diarrheal episodes. The sensitivity of histological and stool examination was similar except for the diagnosis of intestinal cytomegalovirus infection and leishmaniasis, which required invasive evaluation. CONCLUSIONS: Intestinal infections were diagnosed in less than 50% of chronic diarrheal episodes. The prevalence of enteric pathogens tended to decrease during the observation period, possibly because of improved antiretroviral therapy. Endoscopic evaluation did not improve the diagnostic yield compared with stool examination except for the diagnosis of cytomegalovirus enteritis and leishmaniasis.