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Abstract (publication only)

Seroprevalence of hepatitis E virus infection among HIV-infected men who have sex with men in Taiwan

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Objectives: Men who have sex with men (MSM) are at increased risk for infections with viruses that are transmitted through fecal-oral route, such as hepatitis A and hepatitis E virus (HEV). In this study, we aimed to investigate the seroprevalence of HEV infection among human immunodeficiency virus type 1 (HIV-1)-infected MSM who sought HIV care at a major university hospital in Taiwan. **Methods:** Between 1 April 2011 and 30 September, 2011, blood samples were collected from HIV-infected MSM. A standardized computerized data record form was used to collect information on demographics, and clinical, virologic and immunologic characteristics of the subjects. Antibodies against HEV, HEV-specific IgG and IgM, were determined with the use of commercial kits by following the instructions of the manufacturer (Beijing Wantai Biological Pharmacy, Beijing, China). **Results:** During the 6-month study period, 1,260 HIV-infected MSM were enrolled, and 969 (76.1%) were receiving combination antiretroviral therapy. The median CD4 lymphocyte counts and plasma HIV RNA load for the study subjects were 478 cells per cubic millimeter (range, 0-2862) and 3.75 log₁₀ copies/mL (range, 1.60-6.99), respectively. Overall, 83 subjects (6.6%) were seropositive for HEV-specific IgG and 5 (0.4%) tested positive for HEV-specific IgM. When the patients were stratified according to the age group, an increasing trend of seropositivity for HEV-specific IgG was observed, from 1.6% (5/307) in subjects aged between 20 and 29 years, to 25.5% (27/106) in those aged 50 years or greater. Compared with the subjects who were seronegative for HEV-specific IgG, subjects who were seropositive for HEV-specific IgG were older (median, 35 versus 44 years), had a lower median CD4 count (483 versus 421 cells per cubic millimeter), and lower plasma HIV RNA load (3.88 versus 2.88 log₁₀ copies/mL) in univariate analysis. In multiple logistic regression, age (per 1-year increase) and CD4 (per 1-cell per cubic millimeter increase) were independently associated with seropositivity for HEV-specific IgG, with odds ratio of 1.086 (95% confidence interval [CI], 1.063-1.111) and 0.999 (95% CI, 0.998-1.0), respectively. **Conclusions:** We concluded that the HEV seroprevalence of HIV-infected MSM in Taiwan was estimated 6.6%, which increased with age