Abstract

Prevalence of chronic hepatitis B virus infection among high-risk women in Burkina Faso


Objective

To estimate the prevalence of hepatitis B virus (HBV) among women at high risk of HIV infection in Burkina Faso.

Methods

Cross-sectional survey of 603 high-risk women in Burkina Faso. Hepatitis B core antibodies (HBcAb) and hepatitis B surface antigen (HBsAg) were detected in plasma: (i) if results of both tests were positive and if IgM-HBcAb was negative, a chronic HBV infection was diagnosed, which triggered the dosage of hepatitis B envelop antigen (HBeAg) and antibodies (HBeAb); (ii) if HBcAb was positive and HBsAg was negative, detection of hepatitis Bs antibodies (HBsAb) was done.

Results

Overall, 228 (38%), 7 (1%) and 6 (1%) women were HIV-1, HIV-2, and HIV-1+2 seropositive, respectively; 121 (50%) of whom received highly active antiretroviral therapy (HAART) which always included lamivudine (3TC). Among the 445 women (74%) with positive HBcAb, 58 were both HBsAg positive and IgM-HBcAb negative. The prevalence of chronic HBV infection was 9.6% (58/603; 95% CI 7.4–12.2), with similar rates among HIV-seropositive (10.0%) and HIV-uninfected (9.4%) women (P=0.83). Of these 58 women, 7 (12%) were HBeAg positive/HBeAb negative, 45 HBeAg negative/HBeAb positive (78%), and 6 HBeAg negative/HBeAb negative (10%). Of the 387 women positive for HBcAb only, 174 (45%) had undetectable HBsAb. This was more frequent among HIV-seropositive (58%) than among HIV-uninfected (37%) women (P<0.001).

Conclusions

HIV-HBV coinfection was very frequent in this population, which emphasises the need for monitoring the risk of hepatotoxicity and 3TC resistance with 3TC-based HAART. These findings strongly support the need for quantifying HBV DNA levels to estimate the prevalence of pre-C mutant viruses in HBV chronically-infected women, and to detect occult HBV infection, more frequently observed during HIV-HBV coinfection.