

# 18<sup>th</sup> ISSTD, London, 2009

## Abstract

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

C. Huet<sup>1</sup>, A. Ouedraogo<sup>1</sup>, F. Rouet<sup>1</sup>, I. Konaté<sup>1</sup>, I. Traoré<sup>1</sup>, J.-L. Ouedraogo<sup>1</sup>, A. Kaboré<sup>1</sup>, I. Millogo<sup>1</sup>, P. Mayaud<sup>2</sup>, N. Nagot<sup>3</sup>, P. Van De Perre<sup>3</sup>, for the ANRS 1222 Yereon Study Group

<sup>1</sup> Centre Muraz, Bobo-Dioulasso, Burkina Faso

<sup>2</sup> London School of Hygiene & Tropical Medicine (LSHTM), London, United Kingdom

<sup>3</sup> Université Montpellier 1, EA 4205, Montpellier, France

**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 B 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.