

Levels of HBV DNA and not HBsAg are associated with biochemical flares after HBeAg seroconversion

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BACKGROUND: The role of HBsAg levels in predicting subsequent flares in chronic hepatitis B patients after HBeAg seroconversion is not known **METHODS:** Serum HBsAg and HBV DNA levels were determined in 224 CHB patients at 6-12 months after spontaneous HBeAg seroconversion. Serum HBV DNA levels were performed using Cobas Taqman assay. HBsAg titers were determined using Roche Elecsys HBsAg II assay (lower limit of detection 0.05 IU/mL). Patients were follow-up at 3-6 monthly intervals with routine liver biochemistry and viral serology performed. Flares was defined as ALT[29 upper limit of normal (ULN); the ULN for males and females was set at 30 and 19 U/L respectively. **RESULTS:** The median age of HBeAg seroconversion was 37.5 years with a median follow-up of 83 months. Eighty-nine (39.7%) had evidence of biochemical flare occurring at a median time of 27 months after HBeAg seroconversion. Patients with flares had older age compared to those without flares (39 vs 35 years respectively, $p = 0.005$). There was no significant difference in HBsAg levels of patients with flares compared to those without (3.6 logs vs 3.51 logs IU/mL respectively, $p = 0.946$). In patients with flares, the HBV DNA was higher compared to those without flares (5.34 logs vs 4.60 logs copies/mL respectively, $p = 0.007$). Patients with HBV DNA[5 log copies/mL after HBeAg seroconversion had higher rates of subsequent flares compared to those with lower HBV DNA levels ($p = 0.007$ log rank). **CONCLUSIONS:** HBV DNA and not HBsAg levels after HBeAg seroconversion were associated with subsequent flares.