中文題目：e抗原陽性和陰性慢性B型肝炎患者惠立妥停藥後B型肝炎病毒復發的發生率和預測因子

英文題目：Incidence and predictors of HBV relapse after tenofovir therapy in HBeAg-positive and -negative chronic hepatitis B patients

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Background & Aims: The incidence and predictors of HBV relapse after discontinuing tenofovir treatment in chronic hepatitis B (CHB) patients are rarely reported. The aim of this study is to investigate the incidence and predictors of HBV relapse after discontinuing tenofovir treatment in HBeAg-positive and negative CHB patients

Methods: A total of 87 patients (24 HBeAg-positive and 63 HBeAg-negative patients at entry), who were treated with tenofovir previously and had post-treatment follow-up for at least 6 months were recruited. All patients fulfilled the stopping criteria of the APASL 2012. Virological relapse was defined as the reappearance in serum of HBV-DNA level>2000 IU/mL in two consecutive measurements at least three months apart after stopping tenofovir treatment. Clinical relapse was defined as an episode of elevated alanine aminotransferase (ALT) >2x the upper limit of normal (40 U/L) and HBV-DNA>2000 IU/mL.

Results: The cumulative rates of virological relapse at 6 and 12 months were 59.1% and 65.9% in HBeAg-positive patients and were 36.9% and 57.5% in HBeAg-negative patients, respectively. The cumulative rates of clinical relapse at 6 and 12 months were 34.7% and 58.6% in HBeAg-positive patients and were 19.6% and 34.3% in HBeAg-negative patients, respectively. No significant factor could predict the HBV relapse in HBeAg-positive patients. In contrast, Cox regression analysis revealed that age (HR: 1.041, 95% CI: 1.012-1.071, *P*=0.005) and end-of-treatment HBsAg levels (HR: 2.92, 95% CI: 1.70-5.03, *P*<0.001) were independent factors for virological relapse in HBeAg-negative patients. Age of 45 years and HBsAg of 150 IU/mL was as the optimal value for predicting post-treatment HBV relapse within one year. Of the patients who achieved HBsAg <150 and ≥150 IU/mL, the virological relapse rates at month 12 were 34.5% and 75.4%, respectively (*P* < 0.001). On the other hand, Cox regression analysis revealed that age>45 years (HR: 3.88, 95% CI: 1.11-13.59, *P*=0.034), end-of-treatment HBsAg levels <200 IU/mL (HR: 0.27, 95% CI: 0.09-0.80, *P*=0.018) and treatment duration (increased per week) (HR: 1.027, 95% CI: 1.001-1.054, *P*=0.042) were independent factors for clinical relapse in HBeAg-negative patients. Of the patients who achieved HBsAg <200 and ≥200 IU/mL, clinical relapse rates were 16.1% and 46.5%, respectively (*P*=0.012). Four patients experienced HBsAg loss after discontinuing tenofovir therapy. A total of 19 patients received re-treatment. Of the 35 patients who developed clinical relapse. 6 experienced ALT>1000 U/mL during clinical relapse. One patient experienced ALT flare with hepatic

decompensation, but no patient died after re-treatment.

Conclusions: HBV relapses occurred mostly within 12 months with high ALT. Closer monitoring, 1-3 months in the first 12 month, with timely retreatment is mandatory for a safe cessation of tenofovir therapy. Patients with end-of-treatment HBsAg could predict post-tenofovir treatment HBV relapse in HBeAg-negative CHB patients.