

**TREATMENT OUTCOME OF CHRONIC HEPATITIS B GENOTYPE B AND C
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THAI BOARD OF GASTROENTEROLOGY****ABSTRACT**

Currently, two classes of drugs are used for the treatment of chronic hepatitis B (CHB), interferon and nucleos(t)ide analogue (NA). NAs are widely used in Asia including Thailand. There are eight different genotypes of hepatitis B in different regions of the world. In Thailand, majority is genotype C and minority is genotype B. Genotype C infection has more severe disease and higher risk of hepatocellular carcinoma. However, genotype-specific treatment outcome is inconsistent in different ethnicity. Whether treatment outcome of genotype B and C differ after NA therapy is unknown among Thai patients.

The objective of the study was to compare the treatment outcome of CHB genotype B and C patients after sixth months of NA therapy. Primary outcome was undetectable hepatitis B virus DNA (HBV-DNA) less than 3 log₁₀ copies per milliliter.

Forty CHB patients attending to the liver clinic of Hospital for Tropical diseases, Bangkok, from 2004 to 2009 were studied in retrospective cohort design. Six genotype B patients (15%) and thirty-four genotype C patients (85%) were treated. All were treatment naïve patients and Thai ethnicity. Serum HBV-DNA level, serum alanine amino transferase (ALT) level, HBeAg status and alpha-feto protein (AFP) level were measured at the start of NA therapy and again at six months of treatment.

Baseline data of patients in genotype B and C were comparable. After six months of NA treatment, achievement of undetectable HBV DNA was higher in genotype B patients (66.7%) compared to genotype C patients (42.4%) [RR=1.57, 0.79-3.14] ($p=0.387$). ALT normalization was more common in genotype B (50%) than in genotype C (29.7 %) ($p=0.381$). HBeAg conversion was observed in (10 %) of genotype C cases but not in genotype B cases. Median AFP level of two genotype groups were not different significantly ($p=0.317$).

Despite the more severe natural course of genotype C in existing evidence, CHB genotype B and C were not significantly different in term of treatment outcome after six months of NA therapy.

**KEY WORDS: CHRONIC HEPATITIS B, GENOTYPE, TREATMENT,
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