

Association between nucleoside analogues and risk of hepatitis B virus-related hepatocellular carcinoma recurrence following liver resection: a nationwide population-based study in Taiwan

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Abstract

Context Tumor recurrence is a major issue for patients with hepatocellular carcinoma (HCC) following curative liver resection.

Objective To investigate the association between nucleoside analogue use and risk of tumor recurrence in patients with hepatitis B virus (HBV)-related HCC after curative surgery.

Design, Setting, and Participants A nationwide cohort study between October 2003 and September 2010. Data from the Taiwan National Health Insurance Research Database. Among 100938 newly diagnosed HCC patients, we identified 4569 HBV-related HCC patients who received curative liver resection for HCC between October 2003 and September 2010.

Main Outcome Measures The risk of first tumor recurrence was compared between patients not taking nucleoside analogues (untreated cohort, $n = 4051$) and patients taking nucleoside analogues (treated cohort, $n = 518$). Cumulative incidences and hazard ratios (HRs) were calculated after adjusting for competing mortality.

Results The treated cohort had a higher prevalence of liver cirrhosis when compared with the untreated cohort (48.6% vs 38.7%; $P < .001$), but lower risk of HCC recurrence ($n = 106$ [20.5%] vs $n = 1765$ [43.6%]; $P < .001$), and lower overall death ($n = 55$ [10.6%] vs $n = 1145$ [28.3%]; $P < .001$).

Conclusion Nucleoside analogue use was associated with a lower risk of HCC recurrence among patients with HBV-related HCC after liver resection.