

台灣全國性世代研究顯示未治療的慢性B型肝炎感染為慢性腎臟病進展至末期腎病的預測因子

A Taiwanese nationwide cohort study shows untreated chronic hepatitis B virus infection as a predictor of CKD progression to ESRD

陳宜鈞¹ 李中一²

佛教大林慈濟醫院 腎臟內科¹

成功大學公共衛生研究所²

Background: Chronic Hepatitis B virus (HBV) infection, chronic kidney disease (CKD), and end-stage renal disease (ESRD) have high prevalence rates in Taiwan and worldwide. However, the effect of untreated chronic HBV infection on progression of CKD to ESRD is unclear.

Methods: We conducted a nationwide cohort study using claims data in the Taiwan National Health Insurance Research Database, in which all diseases were classified by ICD-9 codes. We identified 13937 CKD patients from 1999 to 2010, with 395 HBV⁺ patients who were not treated with nucleos(t)ide analogues and 13542 HBV⁻ patients. The HBV⁺ cohort was propensity score (PS)-matched (1:4) with 1580 HBV⁻ controls. Cumulative incidences and hazard ratios for ESRD were calculated after adjusting for competing mortality.

Results: In the PS-matched CKD patients, the risk of ESRD was significantly greater in the HBV⁺ cohort (12-year cumulative incidence: 41.2%; 95% CI: 32.9-49.3%) than in the HBV⁻ cohort (26.9%; 95% CI: 24.1-29.7%) ($p=0.043$), and the adjusted hazard ratio was 1.47 (95% CI: 1.19-1.82; $p=0.0003$). This relationship also held for CKD patients overall. In the PS-matched CKD patients, multivariable stratified analysis verified that HBV positivity was associated with increased risk of ESRD in all subgroups.

Conclusions: This large cohort study indicated that untreated chronic HBV infection increased the risk of progression from CKD to ESRD. Our results suggest that HBV-infected patients with CKD should be carefully monitored for development of ESRD.