

中文題目：非侵入性工具評估慢性 C 型肝炎病人直接抗病毒治療後肝細胞癌發生風險

英文題目：Non-invasive tools in risk assessment of hepatocellular carcinoma for chronic hepatitis C patients after direct-acting antivirals

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**Background:** Patients with chronic hepatitis C (CHC) infection and advanced fibrosis remain at risk of hepatocellular carcinoma (HCC) after sustained viral response (SVR) and require lifelong surveillance.

**Aim:** This study was try to use non-invasive tools including liver stiffness (LS), fibrosis-4 index (Fib-4) and AST-platelet ratio index (APRI) to assess the risk of HCC occurrence for CHC patients after direct-acting antivirals (DAA).

**Methods:** This retrospective study enrolled CHC patients achieving sustained virological response (SVR) after DAA. Patients with LS measured by transient elastography and complete lab data at baseline and SVR were followed and analyzed. The demographics, clinical characteristics and LRC development were obtained from medical chart reviews.

**Results:** A total of 387 patients, including 156 male/ 231 female with a median age of 65.4 years were enrolled. In a median follow-up of 35 months after DAA treatment, 28 patients (7.3%) developed HCC with a median size of 1.8 cm. The 1-, 2- and 3-year cumulative incidence of HCC was 1.3%, 4.3% and 7.4%, respectively. While the performance in predicting the occurrence of HCC were 0.738 for baseline LS, 0.680 for Fib-4 and 0.65 for APRI. The optimal cutoffs of LS, Fib-4 and APRI were 16 kilopascal (kPa), 3.8 and 1.2, respectively. In multivariate analysis, baseline LS >16 kPa (hazard ratio (HR): 4.2; 95% confidence interval (CI): 1.5-11.8, p=0.006) and LS reduction >30% at SVR (HR: 0.32; 95% CI: 0.12-0.94, p=0.037) were associated with HCC development, whereas Fib-4 and APRI were not.

**Conclusions:** For patients with CHC after DAA, baseline LS and LS reduction at SVR were independently associated with HCC occurrence. Those patients who with high baseline LS and low SVR LS reduction require frequent HCC surveillances after SVR.