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Treatment with direct-acting antivirals for HCV decreases but does not eliminate the risk of hepatocellular carcinoma

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Abstract

Background & Aims

Data from Europe and North America have been published regarding the risk of developing hepatocellular carcinoma (HCC) after treatment with direct antiviral agents (DAA). We proposed to evaluate cumulative incidence and associated risk factors for de novo HCC.

Methods

This was a prospective multicentre cohort study from Latin America including 1400 F1-F4-treated patients with DAAs (F3-F4 n = 1017). Cox proportional regression models (hazard ratios, HR and 95% CI) were used to evaluate independent associated variables with HCC. Further adjustment with competing risk regression and propensity score matching was carried out.

Results

During a median follow-up of 16 months (IQR 8.9-23.4 months) since DAAs initiation, overall cumulative incidence of HCC was 0.02 (CI 0.01; 0.03) at 12 months and 0.04 (CI 0.03; 0.06) at 24 months. Cumulative incidence of HCC in cirrhotic patients (n = 784) was 0.03 (CI 0.02-0.05) at 12 months and 0.06 (CI 0.04-0.08) at 24 months of follow-up. Failure to achieve SVR was independently associated with de novo HCC with a HR of 4.9 (CI 1.44; 17.32), after adjusting for diabetes mellitus, previous interferon non-responder, Child-Pugh and clinically significant portal hypertension. SVR presented an overall relative risk reduction for de novo HCC of 73% (CI 15%-91%), 17 patients were needed to be treated to prevent one case of de novo HCC in this cohort.

Conclusions

Achieving SVR with DAA regimens was associated with a significant risk reduction in HCC. However, this risk remained high in patients with advanced fibrosis, thus demanding continuous surveillance strategies in this population.