PATIENTS with hepatocellular carcinoma — a type of liver cancer with poor survival rates — have a greater chance of living longer if they participate in a surveillance program that identifies their cancer at an earlier, more treatable stage, according to the authors of research published in the Medical Journal of Australia.

Liver cancer is the fifth most frequently diagnosed cancer type in the world, and the increase in the number of liver cancer-related deaths has been the most rapid for any cancer type in Australia over the past 40 years. Hepatocellular carcinoma (HCC) accounts for about 80% of liver cancer-related deaths in Australia, and the 12-month survival rate is currently 62%. HCC is most frequently identified in patients with cirrhosis, typically caused by chronic hepatitis B (HBV) or C virus (HCV) infections, alcohol-related liver disease, or non-alcoholic fatty liver disease.

The research, led by Dr Thai Hong, a gastroenterologist at Melbourne’s St Vincent’s Hospital, set out to “determine the factors associated with survival of patients with hepatocellular carcinoma (HCC) and the effect of HCC surveillance on survival.”

Participation in a surveillance program was defined as “patients with risk factors defined in international guidelines — cirrhosis of any cause; chronic HBV infection in Asian men over 40, Asian women over 50, African patients over 20 years of age, and people with a family history of HCC — undergoing 6-monthly ultrasound assessment with or without alpha-fetoprotein assessment”.

The study analysed data from 272 patients diagnosed with HCC at the seven tertiary hospitals in Melbourne between 1 July 2012 and 30 June 2013. The most common risk factors were HCV infection (41%), alcohol-related liver disease (39%), and HPV infection (22%). Only 40% of patients participated in HCC surveillance at the time of diagnosis; participation was significantly associated with patients having smaller median tumour size and earlier stage disease. Participation in surveillance was higher among patients with compensated cirrhosis or HCV infections; it was lower among those with alcohol-related liver disease or decompensated liver disease. Median overall survival time was 20.8 months; mean survival time was 18.1 months. Participation in HCC surveillance was associated with significantly lower mortality, as were curative therapies. Conversely, higher Child–Pugh class [used to assess the prognosis of chronic liver disease], alpha-fetoprotein levels greater than 400 kU/L, and later disease stages were each associated with higher mortality.

“We found that survival was better for patients who present with earlier stage disease, smaller tumours, and compensated liver disease,” wrote Hong and colleagues. “These factors all predict eligibility for treatment with curative intent, the factor with the greatest positive influence on survival.

“Surveillance was associated with improved survival. Despite the acknowledged role of HCC surveillance in managing cirrhosis, only 40% of patients were participating in surveillance when diagnosed with HCC.

“We identified two major barriers to increased uptake of surveillance: adherence to surveillance was poor for patients with certain recognised risk factors (decompensated cirrhosis, alcohol misuse), and, perhaps more importantly, a considerable number of patients diagnosed with HCC had hitherto undiagnosed cirrhosis or viral hepatitis. These findings indicate that a two-tiered approach may be needed to improve outcomes.

First, they wrote, clinicians need to be alert to risk factors for chronic liver disease, and if present, those patients should be screened for cirrhosis, preferably longitudinally.

Second, a national HCC surveillance program should be introduced for patients at increased risk of HCC, in accordance with the relevant international guidelines.

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