Direct-Acting Antivirals and Hepatocellular Carcinoma: No Evidence of Higher Wait-List Progression or Posttransplant Recurrence

Abstract

The association between direct-acting antivirals (DAAs) and hepatocellular carcinoma (HCC) wait-list progression or its recurrence following liver transplantation (LT) remains uncertain. We evaluated the impact of DAAs on HCC wait-list progression and post-LT recurrence. This Latin American multicenter retrospective cohort study included HCC patients listed for LT between 2012 and 2018. Patients were grouped according to etiology of liver disease: hepatitis C virus (HCV) negative, HCV+ never treated with DAAs, and HCV+ treated with DAAs either before or after transplantation. Multivariate competing risks models were conducted for both HCC wait-list progression adjusted by a propensity score matching (pre-LT DAA effect) and for post-LT HCC recurrence (pre- or post-LT DAA effect). From 994 included patients, 50.6% were HCV-, 32.9% were HCV+ never treated with DAAs, and 16.5% were HCV+ treated with DAAs either before (n = 66) or after LT (n = 98). Patients treated with DAAs before LT presented similar cumulative incidence of wait-list tumor progression when compared with those patients who were HCV+ without DAAs (26.2% versus 26.9%; P = 0.47) and a similar HCC-related dropout rate (12.1% [95% CI, 0.4%-8.1%] versus 12.9% [95% CI, 3.8%-27.2%]), adjusted for baseline tumor burden, alpha-fetoprotein values, HCC diagnosis after listing, bridging therapies, and by the probability of having received or not received DAAs through

propensity score matching (subhazard ratio [SHR], 0.9; 95% CI, 0.6-1.6; P = 0.95). A lower incidence of posttransplant HCC recurrence among HCV+ patients who were treated with pre- or post-LT DAAs was observed (SHR, 0.7%; 95% CI, 0.2%-4.0%). However, this effect was confounded by the time to DAA initiation after LT. In conclusion, in this multicenter cohort, HCV treatment with DAAs did not appear to be associated with an increased wait-list tumor progression and HCC recurrence after LT.

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