Extended Ischemia Times Promote Risk of HCC Recurrence in Liver Transplant Patients.

There is increasing evidence that ischemia-reperfusion injury (IRI) promotes vasculogenesis and tumor outgrowth in the liver. Hepatic IRI is exaggerated by prolongation of ischemia times. The aim of this retrospective analysis was to assess the impact of ischemia times on risk of hepatocellular carcinoma (HCC) recurrence after liver transplantation (LT). Subgroup analysis focused on patients with (18)F-fluoro-deoxy-glucose ((18)F-FDG)-avid HCC on pretransplant positron emission tomography (PET). A total of 103 liver transplant patients with HCC were included in this study. The impact of cold (CIT), warm (WIT), and total ischemia times (TIT) along with other prognostic variables on posttransplant outcome was analyzed in uni- and multivariate analysis. Twenty-four patients (23.3 %) developed tumor relapse after LT. Mean durations of CIT (468.0 vs. 375.5 min; P = 0.001), WIT (58.4 vs. 45.7 min; P = 0.001), and TIT (525.8 vs. 422.0 min; P < 50 min) (OR 52.5), alpha-fetoprotein level>400 IU/ml (OR 11.1), and Milan Out status (OR 7.4) were identified as independent predictors of HCC recurrence. In the subgroup of patients with PET-positive HCC, WIT remained the only independent variable to predict HCC recurrence (OR 15.5). Prolongation of ischemia times promotes the risk of HCC recurrence after LT, especially in patients with unfavorable tumor.
biology on PET imaging.