The Association of Pre-Transplant Atrial Fibrillation with In-Hospital Outcomes in Patients Undergoing Orthotopic Liver Transplantation: A Propensity Score Matching Analysis

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Abstract

In this study, we sought to evaluate the prevalence and association of pre-transplant atrial fibrillation (AF) on 30-day postoperative outcomes in patients undergoing orthotopic liver transplant (OLT). The National Inpatient Sample Database was queried from 2011 to 2017 for relevant ICD-9 and ICD-10 procedural and diagnostic codes. Baseline characteristics and in-hospital outcomes were compared in patients who underwent OLT with AF and those without. Among 45,357 patients who underwent OLT, women made up 35.8 % of the overall population. The prevalence of AF prior to transplant was 2932 (6.5%) with a trend towards increasing prevalence, with an annual change rate of 4.19%. Applying propensity score matching to control for potential confounding factors, there was no association between pre-transplant AF and in-hospital mortality in patients undergoing OLT, however, there was a higher incidence of perioperative complications. Older age, the presence of heart failure, and anemia were independently predictive of higher mortality in patients with pre-transplant AF undergoing OLT. In patients undergoing OLT, pre-transplant AF is increasing in prevalence and appears to be associated with similar in-hospital mortality but worse perioperative outcomes. Greater emphasis should be placed on AF in the preoperative cardiovascular risk stratification of patients undergoing OLT.

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