

In-Hospital Outcomes of Patients with Non-Alcoholic Fatty liver Disease Who Underwent Percutaneous Coronary Intervention: A Nationwide Inpatient Sample Analysis

Hasan Ali, Maryam Kazmi, Catherine Choi, Reza Hashemipour, Nikolaos Pyrsopoulos

NJMS Internal Medicine- Research Day
Clinical Research- Abstract

Background:

There is increasing evidence that non-alcoholic fatty liver disease (NAFLD) is a risk factor for cardiovascular disease, specifically for coronary artery disease (CAD), given the pathogenesis involving systemic inflammation. Our goal was to use the Nationwide Inpatient Sample (NIS) database of patients from 2016 to explore outcomes in patients who underwent PCI to determine whether the concurrent diagnosis of NAFLD led to worse in-hospital outcomes.

Methods:

We used the NIS database to conduct a cross-sectional study that includes all patients greater than 18 years of age who underwent PCI with or without placement of drug-eluting stents (DES) during hospital admission in the year 2016. Patients with NAFLD were identified. Outcomes for the study included mortality, length of stay and total hospital charges, and major adverse cardiac events (MACE). Variables were analyzed using cross tabulation, Pearson χ^2 test, independent samples t-test. Data was adjusted for confounders using logistic and linear regression.

Result:

Using the NIS database, 85,971 patients were found to have undergone PCI with or without placement of DES in the year 2016. Of these, 512 patients (0.6%) had a diagnosis of NAFLD (NAFLD group) and 85,459 patients did not have NAFLD (non-NAFLD group). There was no difference in mortality and MACE between the NAFLD and non-NAFLD groups. The NAFLD group had a longer hospital length of stay, and a younger age at admission. There was no difference in hospital charges upon adjustment for confounders. More patients in the NAFLD group had type 2 diabetes, hypertension, obesity, OSA, CKD, PVD and GERD. The non-NAFLD group had more patients who smoked tobacco.

Conclusion:

Among patients who underwent PCI in 2016, those with NAFLD had a longer length of stay, were admitted at a younger age, and had significantly more cardiovascular co-morbidities compared to those without NAFLD.