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Ischemic Heart Disease

THE EFFECT OF LONG-TERM USE OF ASPIRIN ON THE OUTCOMES OF COVID-19 INFECTION IN PATIENTS WITH A HISTORY OF CORONARY ARTERY DISEASE AND CHRONIC KIDNEY DISEASE

Poster Contributions

For exact presentation time, refer to the online ACC.22 Program Planner at <https://www.abstractsonline.com/pp8/#!/10461>

Session Title: Ischemic Heart Disease Flatboard Poster Selections: Pharmacology

Abstract Category: 21. Ischemic Heart Disease: Pharmacology

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Background: A history of coronary artery disease (CAD) and chronic kidney disease (CKD) has been associated with poor prognoses in patients infected with COVID-19. There is limited research on the effect of prolonged acetylsalicylic acid (ASA) use prior to infection on the prognosis of this patients' population. The purpose of this study was to evaluate the impact of chronic ASA intake on these individuals' outcomes.

Methods: A retrospective review using the MCOVID19 dataset on the PearlDiver Supercomputer (PearlDiver Technologies, Fort Wayne, IN) was conducted. A cohort of patients with a history of CKD+CAD and a COVID-19 positive test (index event) from December 15, 2019, through October 31, 2020, was identified using ICD9 and 10 codes. The use of ASA for 1 month prior to the index event was used to split the cohort into two propensity score-matched groups, considering age, gender, Charlson Comorbidity Index, and other medications. Records from both groups were reviewed for all-cause mortality, hospitalization, ICU admissions, intubation, hospice discharge and cardiac arrest within one month following the index event. The strength of association was reported using Risk Ratios (RR). A p-value <0.05 was deemed significant.

Results: A subset of 3708 patients with CKD+CAD on chronic ASA had a COVID-19 positive test. These patients had a higher risk of hospitalization (RR 1.38 p<0.0001), intubation (RR 1.33 p 0.009) and gastrointestinal bleeding (RR 1.48 p0.0071) compared to patients who were not on ASA. There was no statistically significant association between ASA and any other investigated outcomes including, mortality, hospice discharge, ICU admission, cardiac arrest and cerebral hemorrhage.

Conclusion: Patients with CKD+CAD who were on chronic ASA within a month after testing positive had a higher risk of hospitalization, intubation and gastrointestinal bleeding after COVID-19 and no different risk of all-cause mortality, ICU admission, hospice discharge and cardiac arrest risk compared with no ASA taking patients.