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Spotlight on Special Topics

LONG-TERM OUTCOMES OF VETERANS WITH A DIAGNOSIS OF HEART FAILURE AFTER CORONAVIRUS-2019 (COVID-19) INFECTION

Poster Contributions

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

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Authors: *Vishal Khetpal, Julia Berkowitz, Lan Jiang, Shilpa Vijayakumar, Khansa Ahmad, Justin Echouffo Tcheugui, Anupama Menon, Daithi S. Heffernan, Gaurav Choudhary, James Rudolph, Wen-Chih Wu, Sebhat Erqou, Warren Alpert Medical School of Brown University, Providence, RI, USA*

Background: Patients with heart failure (HF) are at risk for continued symptoms after recovery from acute COVID-19, termed in a growing body of literature as 'long COVID'. However, limited data have examined whether COVID-19 is associated with higher long-term risk for mortality and hospital admission for HF patients.

Methods: We conducted a retrospective cohort study of HF patients using Veterans' Affairs (VA) data from February 1, 2020, to July 31, 2021. Patients with a diagnosis of HF, defined by ICD-10 codes in the year prior to study entry, and COVID-19 infection during the study period were age-, sex- and race-matched with HF patients without COVID-19 infection. We calculated 90-, 180- and 270-day hazard ratios (HRs) and 95% confidence intervals (CIs) of all-cause mortality and hospital admissions using Cox-regression models with adjustment for comorbidities. To assess for long-term sequelae of infection, only outcomes taking place beyond the first 30 days after diagnosis of COVID-19 infection were included in analyses.

Results: Analyses included 85,818 (mean [SD]; 72.5 [10.3] years, 97.6% male, 71.7% White) HF patients. Compared with the subset of HF patients without COVID-19 infection (n=71,515), the subset of HF patients with COVID-19 infection (n=14,303) had significantly higher risk of 90-, 180-, and 270-day mortality, with exclusion of events taking place within the first 30 days of COVID-19 diagnosis (adjusted HR [95% CIs]: 2.15 [1.96-2.37], 1.63 [1.53-1.75], 1.48 [1.39-1.57], respectively). HF patients with COVID-19 infection also had significantly higher 90-, 180-, and 270-day hospital admission rates with exclusion of events taking place within the first 30 days of COVID-19 diagnosis (adjusted HR [95% CIs]: 1.73 [1.56-1.92], 1.51 [1.42-1.60], 1.44 [1.37-1.52], respectively).

Conclusion: COVID-19 is associated with higher long-term all-cause mortality rate and hospital admission rates for HF patients persisting beyond the acute phase of infection.