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Spotlight on Special Topics

IMPACT OF BASELINE LEFT VENTRICULAR EJECTION FRACTION ON OUTCOMES IN COVID-19 INFECTION

Poster Contributions Saturday, May 15, 2021, 9:45 a.m.-10:30 a.m.

Session Title: Spotlight on Special Topics: COVID 1

Abstract Category: 61. Spotlight on Special Topics: Coronavirus Disease (COVID-19)

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Background: Coronavirus disease 2019 (COVID-19) has high infectivity and causes extensive global morbidity and mortality. Cardiovascular disease raises risk for poor outcomes in COVID-19, but LVEF in particular has not been evaluated.

Methods: In this retrospective cohort study, we analyzed patients diagnosed with COVID-19 between March 20 and May 15, 2020. Inclusion required an available echocardiogram within one year prior to diagnosis. The primary outcome was all-cause mortality. LVEF was analyzed both as a continuous variable and using a cutoff of 40%.

Results: Among 399 patients (67±16 years, 193 [48%] M, 238 [60%] Black, 60 [15%] LVEF ≤40%), 291 (73%) were hospitalized at least once, and 117 (29%) died during 85±63 days of follow-up. Echocardiograms, performed a median of 57 (IQR 11-124) days prior to COVID-19 diagnosis, showed a similar distribution of LVEF between survivors and decedents (55±13% vs. 54±14%, p=0.76). ROC analysis revealed no predictive ability of LVEF for mortality, and there was no difference in survival among those with LVEF ≤40% vs. >40% (p=0.56). Multivariable analysis did not change these relationships. There also was no difference in LVEF based on whether the patient required hospital admission (56±13 vs. 55±13, p=0.33), and patients with a depressed LVEF did not require admission more frequently than their preserved-LVEF peers (75% vs. 73%, p=0.76).

Conclusion: Among patients diagnosed with COVID-19, LVEF was not a risk factor for death or hospitalization.

