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PROGNOSTIC VALUE OF ECHOCARDIOGRAPHIC ASSESSMENT OF LEFT VENTRICULAR FUNCTION IN PATIENTS WITH COVID-19 COMPLICATED BY SHOCK

Poster Contributions

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

Session Title: Spotlight on Special Topics Flatboard Poster Selections: COVID Abstract Category: 61. Spotlight on Special Topics: Coronavirus Disease (COVID-19)

Authors: <u>Brent Klinkhammer</u>, Matthew J. Fata, Steven M. Hollenberg, Lucy M. Safi, David B. Landers, Zoltan Turi, Tirth Talati, Osman K. Yousafzai, Taya V. Glotzer, Jana Tancredi, Joseph E. Parrillo, Hackensack University Medical Center, Hackensack, NJ, USA, Hackensack Meridian School of Medicine, Nutley, NJ, USA

Background: Previous studies have suggested that echocardiographic assessment of left ventricular (LV) function in patients with COVID-19 may be of prognostic value. However, the prognostic value of echocardiography in COVID-19 complicated by shock is unknown.

Methods: At a single US center with a high volume of acute COVID hospitalizations, a prospective database of all COVID-19 patients with shock who had a transthoracic echocardiogram (TTE) performed was analyzed retrospectively.

Results: 332 patients with COVID-19 and shock requiring vasopressor support had at least 1 TTE performed while in shock. LV ejection fraction and echo-derived assessments of multiple parameters including stroke volume index and cardiac output did not differ between survivors and non-survivors. These findings are consistent in all patient subgroups and did not differ based on age, sex, or SOFA scores (figure). TTE estimates of right ventricular systolic pressure also did not correlate with prognosis.

Conclusion: In the largest study of its kind, echocardiographic assessment of LV function in patients with COVID-19 and shock did not offer additional prognostic value, differing from prior studies that included non-shock patients. The routine use of TTE does not appear to provide a prognostic tool for COVID-19 patients with shock.

