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☆ **Spotlight on Special Topics**

## TAKOTSUBO SYNDROME FROM COVID-19 INFECTION

Poster Contributions

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

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

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**Background:** Takotsubo syndrome (TTS) is a rare form of acute, reversible left ventricular dysfunction which occurs in high catecholamine states. We hypothesized that COVID-19 patients may have TTS given the elevated catecholamine state in this disease.

**Methods:** We conducted a retrospective study of consecutive patients with PCR confirmed COVID-19 who had a transthoracic echocardiogram (TTE) at a single center between April 2020 and March 2021. The TTE reports of confirmed COVID-19 patients were queried for “takotsubo” or “stress-induced cardiomyopathy” as well as regional wall motion abnormalities. These TTEs were reviewed to confirm TTS based on the presence of basal segment hyperkinesis with associated apical hypokinesis. Patients with coronary artery disease (CAD) were excluded.

**Results:** Of 476 confirmed COVID-19 patients who had TTEs, our initial query resulted in 47 TTEs, of which nine met criteria for TTS. Four were then excluded due to CAD. The remaining five patients with COVID-19 and TTS had a mean age of 73 years, of whom 3 patients were female. The mean time from COVID-19 diagnosis to TTE was 1.6 days [1-3 days]. Patients had hyperinflammatory labs and elevated cardiac biomarkers.

**Conclusion:** The high catecholamine state associated with COVID-19 may drive the development of TTS. In our cohort, the prevalence of TTS in patients with COVID-19 was 1.05%. The true prevalence in COVID-19 patients may be confounded by the presence coexisting CAD.

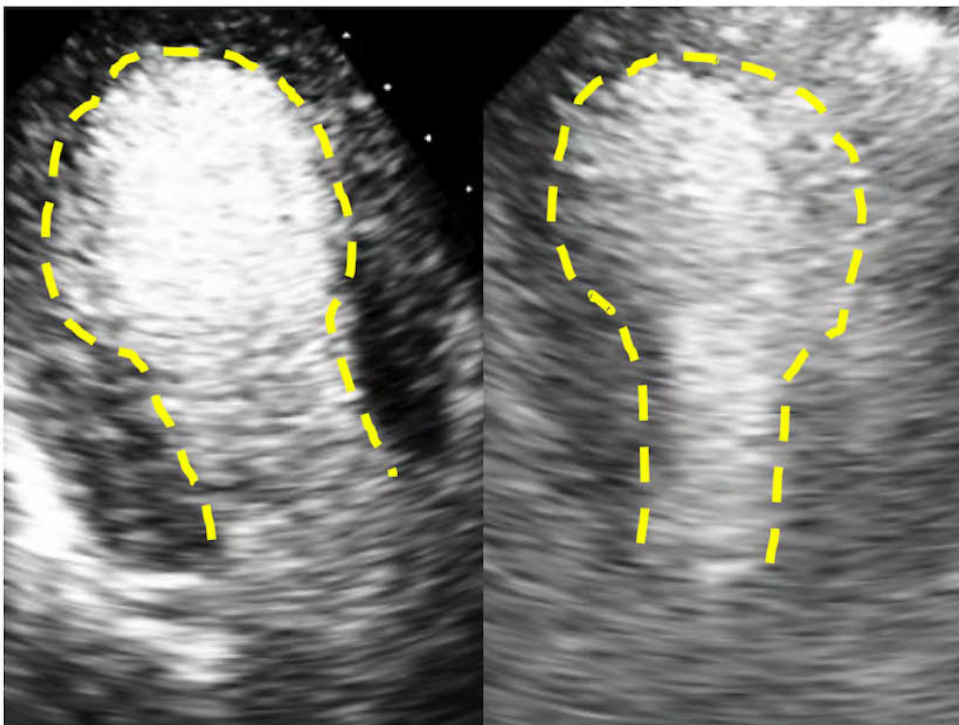


Figure – Transthoracic echocardiogram of two confirmed COVID-19 patients with Takotsubo syndrome. Basal segment hyperkinesis and apical hypokinesis or “apical ballooning” can be seen on contrast enhanced apical two-chamber views.