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☆ **Complex Clinical Cases**

**ST ELEVATION IN A PATIENT WITH SARS-COV-2 PRESENTED WITH CHEST PAIN: ACUTE CORONARY SYNDROME OR BRUGADA PATTERN**

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

Session Title: Complex Clinical Cases: FIT Flatboard Poster Selections -- Covid  
Abstract Category: FIT: Coronavirus Disease (COVID-19)

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**Background:** Coronavirus disease-2019 (COVID-19) may provoke myocardial ischemia or inflammation that can manifest as ST-segment elevation on electrocardiogram (ECG). However, patients with COVID-19 may experience fever which can unmask Brugada pattern ECG.

**Case:** 44-year-old African American male with 20-pack-year smoking history presented with two hours sustained shooting chest pain and shortness of breath. He was febrile at 100.6 Fahrenheit on admission. High sensitivity troponin was < 6 ng/L. ECG showed 2-mm ST elevation in pre-cordial leads (Figure 1). Nasal swab for SARS-CoV-2 was positive.

**Decision-making:** Due to ongoing chest pain and ECG changes, patient was taken to the cardiac catheterization laboratory which revealed normal coronary arteries. Over course hospitalization, his fever resolved. Repeat ECG showed resolution of ST elevation (Figure 2). It was determined that patient had type 1 Brugada pattern ECG induced by fever associated with COVID-19. Since there was no personal history of syncope or family history of Brugada syndrome or sudden cardiac death, defibrillator was not recommended. Upon 1 month follow up, his ECG did not show further Brugada pattern.

**Conclusion:** COVID-19 infection related fever can unmask type 1 Brugada pattern ECG in patients. Timely treatment for fever should be recommended since it may reduce the risk of developing arrhythmia true Brugada syndrome. Careful clinical history and investigation may avoid invasive interventions in these patients.

Figure 1. Initial 12-lead electrocardiogram with 100.6 F fever.

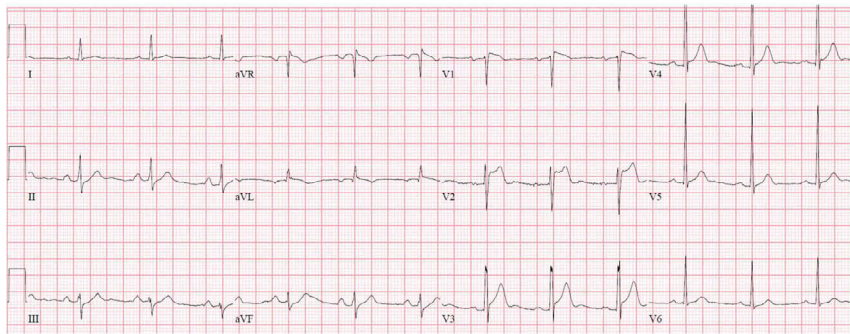


Figure 2. Electrocardiogram prior to discharge without fever.

