Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Complex Clinical Cases

BRUGADA PHENOCOPY IN COVID-19 PATIENT WITH FEVER AND HYPERKALEMIA

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: Brugada pattern (BrP) phenocopy can be seen with various conditions. We report a case of Type-1 BrP that was induced by fever and hyperkalemia in a COVID-19 patient.

Case: A 62 year-old male, with end-stage renal disease and severe coronary artery disease status post bypass surgery, was admitted for fever (39.4C), severe COVID-19 pneumonia, and mixed cardiogenic/septic shock. ECG showed new Type-1 BrP (Fig A). Echocardiography showed globally reduced ejection fraction of 37%. Laboratories were remarkable for hyperkalemia (6.4 mmol/L), hypomagnesemia (1.8 mg/dL), and elevated troponin (3002 ng/L). Coronary angiogram showed chronic occlusion of the diagonal branch but otherwise patent grafts. No ventricular arrhythmia was documented on telemetry. Type-1 BrP partially normalized after dialysis and resolved completely after fever subsided (Fig B). Left ventricular dysfunction and regional wall abnormality normalized at 3-month follow-up. There was no cardiac event over a 9-month follow-up.

Decision-making: Brugada phenocopy can be seen in fever and electrolyte abnormality. Type-1 BrP is this patient was likely due to fever and hyperkalemia. Patient was managed conservatively given transient Type-1 BrP without documented ventricular arrhythmia.

Conclusion: This case highlights the diagnostic challenge in BrP. Brugada phenocopy can be seen with structural heart disease, fever, and electrolytes abnormality. It is critical to differentiate Brugada phenocopy from Brugada syndrome.