

### C53. Infection of Coronavirus Disease 2019 Reveals Brugada Pattern

N. A. S. Patriya, A. Yasa

Cardiology and Vascular Medicine Department, Faculty of Medicine; Universitas Sebelas Maret, Dr. Moewardi Hospital, Surakarta, Indonesia

**Background:** Coronavirus Disease 2019 (COVID-19) resulted considerable morbidity and mortality worldwide since December 2019. In the other hand, Brugada syndrome had higher risk of sudden cardiac death. Although it was manifested with an electrocardiographic (ECG) abnormalities, the patients with Brugada syndrome were often healthy and unaware of their genetic predisposition.

**Case Summary:** A 59 years old man without significant medical history was reported a day of fever, productive cough, and shortness of breath. He did not complain any chest pain, palpitation, and episode of syncope. The patient had no family history of sudden cardiac death. On presentation, he was febrile (39,5°C), tachycardia (110 beats/ min), and tachypnea (28 breath/ min). Laboratory findings of the patient were elevated High-sensitivity C-reactive protein (hs-CRP), with normal electrolyte level, and troponin. The Polymerase chain reaction (PCR) test for COVID-19 performed with the positive result. The chest radiograph showed multifocal bilateral interstitial with a normal cardiac silhouette. The ECG revealed Brugada type 2 ECG pattern. A bedside echocardiogram demonstrated with the normal result. His condition continued to improve and the ECG demonstrated complete resolution of the initial Brugada ECG pattern.

**Discussion:** COVID-19 infection has been described as unmasking Brugada pattern. The most frequently reported symptoms of COVID-19 was fever. Brugada syndrome was a genetic disorder, that was most commonly involving SCN5A gene, which encoded the cardiac sodium channel. Fever caused blockade of sodium channel was being well described provocative trigger that might incite arrhythmia in patient with Brugada syndrome.

**Keywords:** Coronavirus • COVID 19 • Brugada.