

C71. Perimyocarditis related Corona Virus Disease: A Case Report

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Background: One of the ongoing outbreaks is the SARS-COV2 with clinical manifestations are dominated by pulmonary symptoms. However, some patients have reported mild to severe cardiovascular damage¹.

Case Summary: We report a 26-year-old male with confirmed Corona Virus Disease (COVID-19), who has manifestation of perimyocarditis. Diagnosis was built through clinical symptoms of fever, dyspnea, with ST elevation and PR depression on ECG, and an increase of hs-Troponin I and NT-Pro-BNP. There appeared to be a pericardial effusion on echocardiography, and an increase number of cardiothoracic ratio (CTR) during the infection. All of the perimyocarditis parameters improved when symptoms are decrease meanwhile laboratory showing improvement of inflammatory parameters (CRP, D-Dimer).

Discussion: Acute perimyocarditis is a reported cardiac complication of COVID-19¹. COVID-19 perimyocarditis associated with pericardial effusion and cardiac tamponade². Electrocardiogram (ECG) abnormalities commonly seen with pericarditis, such as ST elevation and PR depression, may be observed in myocarditis³. Many COVID-19 patients were reported to have a detectable level of cardiac-Troponin-I as a result of oxygen supply-demand mismatch, which could precipitate ischemia that results in type 2 myocardial infarction. NT-pro-BNP level also could increase secondary to myocardial stress, a possible knock-on effect from severe respiratory illness⁴.

Keywords: Corona Virus Disease (COVID-19) • perimyocarditis • pericardial effusion