

C45. Exercise-Induced Ventricular Tachycardia in Normal Coronary Artery Patient with Incidental Finding of COVID-19 : a case report

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Background: Exercised-induced ventricular tachycardia is associated with pre-existing ischemia or structural heart disease. However, exercise-induced ventricular tachycardia in asymptomatic patient without evident of coronary artery disease or structural heart disease needs further investigation.

Case Description: A 53-year-old woman with suspected coronary artery disease underwent an Exercise Stress Test. During recovery phase, the patient developed monomorphic ventricular tachycardia accompanied by drowsiness, which lasted eight minutes before resolving. The patient was tested positive on COVID-19 screening, a mandatory testing before hospital admission. Subsequent evaluation with transthoracic echocardiography and coronary angiography revealed absence of coronary artery stenosis and significant structural heart disease. Twenty-four hours Holter monitoring results were low-grade premature ventricular contractions.

Discussion: Exercise-induced ventricular tachycardia in normal coronary artery patient may be associated with an increased risk of sudden cardiac death, thus required careful examinations and establishment of underlying pathology. COVID-19 was reported to be associated with and might trigger episodes of ventricular tachycardia through sympathetic hyperactivity or re-entry in myocarditis. This case is noteworthy due to the absence of typical cause of exercise-induced ventricular tachycardia and the possible relation with COVID-19 infection. However electrocardiogram monitoring should be taken periodically to observe recurrences and to determine prognosis.

Keywords: Ventricular tachycardia • Exercise • COVID-19.