

OR13. Cardiac Arrhythmias on COVID19 Patients: Characteristics, Correlated Risk Factors and Associated Outcomes

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Background: Arrhythmias in COVID19 patients were often found. This study was aimed to investigate characteristic, risk factors, and outcome of arrhythmic COVID19 patients.

Methods: This was a single-centered study. All confirmed COVID19 patients admitted from May 2020 until March 2021 were included. Data were obtained from medical records. Patients with no ECG or incomplete medical record were excluded. Bivariate analysis through Chi Square was used to define association between arrhythmia risk factors, and outcomes.

Results: 374 patients were included, ranged from 2 until 85 years old (mean 52.5 ± 15 , median 54). Mostly were males (53.7%) with 10 days median hospice care. Fifty eight patients (15.50%) had arrhythmia, which were mainly sinus tachycardia, supra-ventricular tachycardia, ventricular extra systole (3.7% each) and atrial fibrillation (3.5%). Congestive heart failure (CHF) (31.9%) and hypertension (28.7%) were the main comorbid. Bivariate analysis was conducted. CHF increased risk of arrhythmia by two times (RR: 2.15, CI 95%: 1.21 - 3.83, $p < 0.008$) and *chloroquine* use by 1.17 times (RR: 1.17, CI 95%: 1.05 - 1.11, $p < 0.04$). Arrhythmia events increased mortality risk by 2.5 times (RR: 2.52, CI 95%: 1.41-4.48, $p < 0.001$). Eighteen patients (31.03%) with arrhythmia died, especially those with atrial fibrillation (7 patients).

Conclusion: Sinus tachycardia, supraventricular tachycardia, ventricular extra systole, and atrial fibrillation were the most arrhythmia found. CHF and the use of chloroquine increased risk of arrhythmia. Arrhythmia itself, especially atrial fibrillation, should be monitored as it increased mortality.

Keywords: Cardiac arrhythmia • CHF • COVID-19 • Mortality • SARS-CoV-2.