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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Spotlight on Special Topics

ARRHYTHMIA AND MYOCARDIAL INFARCTION INCIDENCE IN 904 PATIENTS DIAGNOSED WITH NOVEL CORONAVIRUS AT AN ACADEMIC CENTER

Poster Contributions
Sunday, May 16, 2021, 2:45 p.m.-3:30 p.m.

Session Title: Spotlight on Special Topics: COVID 6
Abstract Category: 61. Spotlight on Special Topics: Coronavirus Disease (COVID-19)

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Background: Initial studies have shown that coronavirus disease-2019 (COVID-19) is associated with cardiac arrhythmias and myocardial infarction (MI). We reviewed ECGs for a large cohort of COVID-19 positive patients to identify trends in cardiac disease.

Methods: A retrospective review was done on 2265 ECGs of 904 patients diagnosed with COVID-19 from March-July 2020 at a 614-bed quaternary academic hospital. Based on ECG diagnosis, the incidence of MI and arrhythmias including atrial fibrillation, atrial flutter, atrial tachycardia, supraventricular tachycardia, ventricular tachycardia, and heart block were recorded.

Results: An arrhythmia or MI were identified on ECG in 15% of patients (137 total) who tested positive for COVID-19. Atrial arrhythmias accounted for most of the abnormalities, with 116 patients (12.8% of the COVID-19 population) having either atrial fibrillation (88), atrial flutter (15), SVT (8) or atrial tachycardia (5). Only 3 cases of heart block (2 Mobitz I, 1 Mobitz II, 0 complete heart block), and 0 case of ventricular tachycardia were identified on 12 lead ECG. 18 patients presented as an acute STEMI accounting for 2% of the COVID-19 population. (Table 1)

Conclusion: The vast majority of COVID-19 patients had neither arrhythmias or evidence of STEMI on their ECGs. Atrial fibrillation was the most common arrhythmia and STEMI's occurred in nearly 2% of the population. Transient arrhythmias such as VT and complete heart block may have been underestimated.

Table 1: Incidence of Arrhythmias and MI in COVID Positive Patients

	Number of Patients	% of Covid Positive Patients
Atrial Fibrillation	88	9.73%
Atrial Flutter	15	1.66%
SVT	8	0.88%
AT	5	0.55%
Mobitz I	2	0.20%
Mobitz II	1	0.10%
CHB	0	0.00%
VT	0	0.00%
ST Elevation MI	18	1.99%
No Arrhythmia	767	84.85%