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ASSOCIATION OF NEW-ONSET ARRHYTHMIAS AND COVID-19 INFECTION IN HOSPITALIZED PATIENTS

Poster Contributions
Poster Hall_Hall F
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Background: Myocarditis and other adverse cardiac events after COVID-19 infection are well documented in literature, however, less has been published about the effects of SARS-CoV2 on the cardiac conduction system. This study aimed to determine if a correlation exists between new-onset arrhythmias and COVID-19 infection in hospitalized patients.

Methods: Data was collected for all patients who tested positive for COVID-19 from the beginning of the pandemic to the end of December 2021. Each chart was reviewed for new onset arrhythmias, determined by either formal diagnoses or EKG findings. Patient history and outpatient records were reviewed to ensure there was no previous documentation of arrhythmia.

Results: A total of 1786 patients were included, with a total of 349 incident arrhythmias identified in 315 (17.6%) patients (table 1). Atrial fibrillation comprised the largest portion of arrhythmias (43.0%), followed by sinus bradycardia (22.3%).

Arrhythmia	Incidence - n (%)
Sinus bradycardia	78 (22.3)
1st Degree AV Block	30 (8.6)
2nd Degree AV Block	1 (0.3)
3rd Degree AV Block	3 (0.9)
Atrial fibrillation	150 (43.0)
Atrial Flutter	7 (2.0)
Multifocal Atrial Tachycardia/Wandering Atrial Pacemaker	4 (1.1)
Right Bundle Branch Block	40 (11.5)
Left Bundle Branch Block	13 (3.7)
Fascicular Block	16 (4.6)
Ventricular Tachycardia/Ventricular Fibrillation	7 (2.0)

Conclusion: Nearly 1 in 5 patients diagnosed with COVID-19 requiring hospitalization developed a new onset arrhythmia. With almost 100 million confirmed cases of COVID-19 infection in the United States, the treatment required for new onset arrhythmias, including long term sequelae such as embolic strokes, is expected to negatively affect patient's quality of life and increase healthcare costs.