

What can we find in the ECG recording in convalescent from COVID-19 with mild and moderate course

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Funding Acknowledgements: Type of funding sources: None.

Despite the fact that most people with COVID-19 (C-19) do not require hospitalization, little is known about the changes in ECG in this group of patients (pts). The electrocardiogram (ECG) is one of the leading tools to assess the extent of cardiac involvement in C-19 pts.

Our main aim was to assess ECG abnormalities related to cardiac involvement in patients without hospitalization with mild and moderate course of C-19.

Methods: Only pts without co-morbidities, not taking any medications were included to the study. In all pts standard 12-lead electrocardiograms (EKG) mean 8,2week +/- 4,6 after C-19 was performed in supine position after 15 minutes in rest. The following parameters were analyzed: mean heart rate (mHR), bradycardia and tachycardia episodes defined as HR <40bpm and HR > 100 bpm, PQ duration, QRS durations, the Bazett-corrected QT interval, changes in the ST-T segment and the T wave. Additionally heart rhythm disturbances were assessed and atrial fibrillation/flutter episodes, the presence of atrial premature contractions (APCs), ventricular premature contractions (VES) Number of atrioventricular blocks, bundle branch blocks (BBB) – (RBBB, LBBB, a nonspecific intraventricular conduction block) were also analyzed.

Results: 264 pts were included to final assessment, with mean age 43,5 ± 13,5 years. The results were as follow: HR <40bpm - in 0pts, HR > 100 bpm in 9(3%)pts, PQ duration > 200ms in 7(3%)pts, QRS durations > 100ms in 19(6%)pts, QTc interval in 16 (6%)pts, ST-T segment abnormalities in 21(8%)pts and the T wave abnormalities in 16(6%)pts. Following heart rhythm disturbances were noted: AF/AFI in 0pts, (APCs) in 0pts, VES – in 3(1%)pts. No episodes of atrioventricular blocks were recorded, but BB in bundle branch blocks (BBB) – (RBBB, LBBB, a nonspecific intraventricular conduction block) in 14 (3%) pts were noted.

Conclusions. The most frequent ECG abnormalities in pts without co-morbidities after COVID-19 without hospitalization were ST-T segment and T abnormalities. A large number of changes in ECG confirms that we can expect cardiac involvement also in the group of patients with mild and moderate course of COVID-19.