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"DIGITALIZATION" IN CARDIOLOGY: CHANGES IN ECG MARKERS DURING COVID-19

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COVID-19 pandemic adjusts care for patients with cardiovascular disease. According to the European Association of Cardiologists Recommendations, no specific electrocardiogram (ECG) differences were found in patients with and without confirmed COVID-19. The minimal findings were rather signs of myocarditis (apparently caused by the virus itself) and a small number of arrhythmias in such patients. It is clear that the final diagnosis of COVID-19 can be made only in the presence of a positive PCR or ELISA test, and the presence of other "specific" signs of SARS-CoV-2 infection. However, this little informativeness applies to the routine ECG performed on all patients admitted to the hospital.

The aim of the study is to establish possible differences in the ECG of patients with / without a confirmed diagnosis of COVID-19 and various cardiac pathology in digital processing of routine ECG using the software-diagnostic complex "Smart ECG" and the ability to assess the course of treatment of these patients.

The routine ECG was digitally processed to determine the angle βo of the ST segment slope and the extension height H of the ST segment slope (ST, mV). The first derivative of the T wave with the calculation of the maximum velocities ratio (MVR) and the adjacent extreme values ratio (AEVR) were obtained. These parameters were evaluated in a patient diagnosed with COVID-19 and probable myocarditis of viral etiology.

In the analysis of the studied parameters obtained by "digitalization" of routine ECG made on the 1st, 5th and 10th days of treatment in a patient with diagnosed COVID-19 and probable myocarditis of viral etiology. The dynamics of changes in the background of therapy shows the normalization of MVR (0.393; 0.417 and 0.833), which indicates a positive effect of anti-ischemic therapy, as well as a decrease in microvascular myocardial damage COVID-19, with the development of pericyte damage, which can also lead to ischemia. At the same time, the growth of AEVR with its subsequent decline (1,167; 1,375 and 1,0), as well as changes in the angle βo (8,53; 6,84 and 4,54) and its continuation height H (0,37; 0, 30 and 0.40), may reflect the dynamics of COVID-19 in this patient and treatment efficacy.

The use of "digitalization" of the ECG in patients with cardiovascular disease and the presence / absence of COVID-19, can significantly improve the informativeness and specificity of the classical ECG and improve its diagnostic and prognostic value in this group of patients. The dynamics of changes in the indicators obtained during "digitalization" on the background of therapy demonstrates their normalization, which indicates a positive effect of therapy, and may reflect the course of COVID-19 and concomitant cardiac pathology.

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ASSOCIATION OF RED BLOOD CELL DISTRIBUTION WIDTH WITH THE ACUTE PANCREATITIS AND CHRONIC PANCREATITIS EXACERBATION FROM THE POSITION OF THE PROGNOSIS

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The aim of the research was to investigate the association of red blood cell distribution width (RDW) with the acute pancreatitis and chronic pancreatitis exacerbation as a possible prediction factor. Moreover, biomarkers are urgently needed for patient risk stratification. This study included adults diagnosed with acute pancreatitis and chronic pancreatitis exacerbation admitted to Emergency Hospital in Chernivtsi, between January, 2017, and January, 2020. A total of 123 patients were included in the study. The clinical data were retrospectively analysed for all patients. The measures included RDW at admission or during the first 24 hours, with an elevated RDW-coefficient of variation (RDW-CV) defined as more than 14.5%.