

Short Report*Open Access, Volume 4***Impact of covid-19 on blood values of patients with coronary heart disease****Zhantleu Dauren***; **Nurmakanova Zhannat M***Department of General Practitioner, Kazakh National Medical University, Almaty, Kazakhstan.****Corresponding Author: Zhantleu dauren**

Department of General Practitioner, Kazakh National Medical University, Almaty, Kazakhstan.

Tel: +77071056660,

Email: zhantleu119@gmail.com

Abstract

Patients with coronary heart disease [CHD] have an increased risk of developing complications from COVID-19, such as myocarditis, thrombosis, arrhythmias, and heart failure. The first markers of these complications are blood counts, their monitoring can help early diagnosis and treatment of complications, thereby improving the prognosis for these patients.

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Purpose of the study

Conduct a comparative analysis of blood parameters in patients suffering from CHD in combination with COVID-19.

Materials and methods

Using computer programs, for the period from 2020 to 2022, the medical histories of patients with COVID-19 at City Clinical Hospital №7 in Almaty were analyzed. Randomly, 66 patients each were selected into two groups. Group I included patients suffering from CHD in combination with COVID-19, whose average age was 58.7±0.5 years, and group II included patients without CHD, with an average age of 59.1±0.5 years.

Results

A comparative blood test showed: the average level of leukocytes in the group with CHD was 23.7% higher, the average level of CRP was higher in the group of patients with CHD by 39.8%, which indicates a higher degree of inflammatory processes in this group, but the level of platelet counts in this group were lower by 7.2%. Total cholesterol, low-density lipoproteins, triglycerides in the group with CHD were 17.2, 11.6 and 13.7% higher, respectively, compared to the group without CHD. Indicators of the blood coagulation system had the same trend:

prothrombin time, fibrinogen in patients with CHD were 13.7 and 15.5% higher than compared to the indicators in the group without CHD. D-dimer is 13.2% higher in the group with CHD, which indicates an increased risk of thrombosis, and is also an indicator of systemic inflammation. The increase in aminotransferase levels [ALT and AST] in the group of patients with CHD were 18.9 and 37.2% higher, respectively, compared to the group without CHD, which indicates more severe liver damage during COVID-19 in patients with CHD.

Conclusions

Based on the results obtained, it can be assumed with some confidence that an increase in inflammation indicators (leukocytes and CRP), lipid profile, blood coagulation system and aminotransferases in the group of patients suffering from CHD in combination with COVID-19 may indicate the development of possible complications of both CHD and COVID-19. Regular monitoring of these indicators is an important tool for early diagnosis and monitoring of patients' condition. It will allow to quickly respond to any changes and timely adjust treatment, which will significantly improve the prognosis of these patients.

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