THE ROLE AND SIGNIFICANCE OF HEMOSTASIS IN COVID-19

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Boltayeva Feruza Ganzhabayevna
Babajanova Shoira Agzamovna
Urgench branch of the Tashkent Medical Academy. Uzbekistan.
Tashkent Medical Academy. Tashkent. Uzbekistan.

Introduction: COVID-19 is a very complex and formidable disease that has a systemic nature involving almost all organs and systems. One of the main complications of COVID-19 are disorders of the hemostatic system, such as micro- and macrovascular lesions, most often deep vein thrombosis, pulmonary embolism, primary pulmonary artery thrombosis, up to a syndrome similar to intravascular coagulation. The inconsistency of scientific data on the features of disorders in the hemostasis system in COVID-19 patients indicates the need for additional research.The aim of the study was to study the features of hemostasiological disorders in patients with coronavirus living in the Khorezm region.

Materials and methods of research: Hemostasiological studies were conducted in 115 COVID-19 patients treated in the covid department of the Khorezm regional Multidisciplinary Center for the period 2019-2020. At the time of treatment, the average age of patients was 41.2± 3.4 years. The diagnosis of COVID-19 was established on the basis of positive PCR test results. The control group consisted of 21 conditionally healthy donors of comparable age without systemic inflammation and pathology of the hemostasis system.

Results and discussion: The data obtained indicate the presence of hypercoagulation, the degree of hypercoagulation syndrome and the risk of thrombosis depend on the severity of COVID-19, which is confirmed by a statistically significant shortening of VSC by more than two times (compared with the control group 248.0±6.8 to 118.2±7.4) and APTT by 1.5 times (up to 28±2.1 against 43±1.0). In addition, these changes were accompanied by a significantly significant increase in the level of RFMC among COVID-19 patients by almost two times to 6.76±0.2 g/l at a level equal to 3.85±0.05 g/l in the control group. The average TV value compared to the control group turned out to be 1.6 times longer, and the average amount of fibrinogen exceeded its level in comparison with the control by 1.8 times. It was found that in COVID-19 patients, under the influence of a systemic inflammatory process from the hemostasis system indicators, there is an acceleration of clotting with readiness for thrombosis.

Conclusion: The results obtained in COVID-19 patients indicate a state of hypercoagulation, as evidenced by an increase in the concentration of a number of

plasma coagulation factors in the blood and an increase in fibrin degradation products. This, in turn, proves the need for studies of hemostasis indicators in COVID-19 patients, for timely prevention of severe thrombotic complications, initiation and monitoring of anticoagulation therapy.