

IFN- α STATUS IN PATIENTS WITH SARS-CoV-2 AND TYPE 2 DIABETES

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Against the background of the COVID-19 pandemic, all countries have recorded an increase in the number of deaths. Special groups of patients were distinguished in which the death rate significantly exceeded the average statistical indicator. One such group includes patients with diabetes mellitus (DM). Many studies conducted in different countries have shown that patients with diabetes have a higher risk of infection with COVID-19, as well as a more severe course of the disease and a higher mortality rate.

Methods:

103 patients hospitalized with SARS-COV-2 pneumonia at the Bukhara Regional Infectious Diseases Hospital, which was converted into a Covid-center, were included in the study. Of all those hospitalized with SARS-COV-2 pneumonia against the background of type 2 diabetes, 35 patients with severe pneumonia (group 1) and 33 patients with moderate severity (group 2) made up. The comparison group (group 3) consisted of 35 patients with SARS-CoV-2 pneumonia who did not have diabetes. The control group consisted of 30 healthy people of a suitable age.

Results:

The analysis of circulating interferon levels in blood serum showed a decrease in IFN- α synthesis by 2.3 times ($r < 0.001$) in group 1 patients, 2.0 times ($r < 0.001$) in group 2 patients, and 1.38 times in group 3 patients ($r < 0.05$) showed a decrease. Therefore, the results of the analysis of the level of IFN α showed a decrease in antiviral activity in patients with SARS-CoV-2 pneumonia, regardless of the presence of type 2 diabetes mellitus as a concomitant disease. At the level of the obtained data, there is statistical significance at the level of $r < 0.001$ in patients with SARS-CoV-2 pneumonia on the background of type 2 diabetes mellitus, and the level of reliability is $r < 0.05$ in patients of the comparison group.



Conclusion:

Thus, the study of interferon α status in patients with coronavirus infection against the background of type 2 diabetes mellitus showed that the outcome of the disease depends on multifactorial factors: Presence of diabetes and chronic non-infectious diseases of other organs; Duration of use of antidiabetic drugs; Treatment with glucocorticosteroids.

