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# CORONAVIRUS INFECTION (COVID-19) - THE EFFECT OF A NEW STRAUM OF SARS COV-2 CORONAVIRUS ON THE CONTINUOUS INCREASE OF BLOOD GLUCOSE IN DIABETES

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#### **KEYWORDS**

# ABSTRACT

**Coronavirus** infection (COVID-19), anosmia, ageustia, distress syndrome, sepsis, incubation period. proliferation. leukopenia, lymphopenia, hypoxia, glucocorticoids, collagen, proteoglycans, pancreas, anamnesis Morbi

This article provides information on the causes of high glucose levels (+++) in the blood of patients with Covid-19 infection by analyzing with the help of the anamnesis vitae, anamnesis morphine, and blood biochemical methods. At the same time, the patients were divided into two groups: group 1 with pre-existing chronic diabetes mellitus, and group 2 the patients who developed diabetes after having been infected by COVID-19 their blood pressure increased due to taking glucocorticoids. The causes of various problems in patients' bodies were studied in these control groups.

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#### **RELEVANCE OF THE TOPIC.**

Coronavirus Infection (COVID-19) - A new strain of the SARS COV-2 coronavirus family that causes airborne and household contact, is susceptible to lung tissue damage, from asymptomatic virus transmission to disease transmission. Irritable bowel syndrome is an acute infectious disease that can lead to intoxication, inflammatory processes of the upper and lower respiratory tract, pneumonia with acute respiratory distress syndrome and the risk of developing sepsis described. The incubation period is 2 to 14 days, with an average of  $5-7 \pm 2$  days. The range of clinical signs in the general population varies from the mild stage of the disease to the development of a critical condition. Diabetes mellitus is a disease of the endocrine system, in which hyperglycemia as a result of complete or partial deficiency of the hormone insulin is accompanied by a continuous increase in blood glucose, metabolic processes in the body (carbohydrate, fat, protein, mineral and water-salt metabolism). is described as a chronic disease that causes disorders and irreversible organic pathologies. The hormone insulin is used to store or store glucose in the blood as energy. In diabetes, on the other hand, the body cannot produce enough insulin or use it effectively. As a result, the blood sugar level rises above normal, and various pathological conditions occur in the eyes, kidneys, nerves and other vital organs. There are two types of diabetes. In people with type 1 diabetes, the insulin-producing cells in the pancreas do not produce insulin for a variety of reasons. In type 2 diabetes, the sensitivity of the corresponding cells in the body to insulin is reduced, and even if sufficient insulin is produced, there is a problem with the entry of blood glucose into the cells. As a result, the amount of sugar in the blood remains high. This causes various problems in the body.

The aim of the study was to study the biological mechanisms of the effect of a new strain of coronavirus infection (covid-19) -sars cov-2 on the persistent increase in blood glucose in diabetes.

#### **RESEARCH MATERIALS AND METHODS.**

In order to determine the cause of high glucose (+++) in the blood of patients with Covid-19 infection, we divided the patients into 2 groups by means of anamnesis vitae, anamnesis morbidity and biochemical examination of blood. In group 1 patients with preexisting chronic diabetes mellitus, and in group 2 patients with Covid-19 infection, damage to the insulin-producing beta cells that maintain normal blood sugar due to damage to the tail of the pancreas patients. In addition, high blood glucose (+++) was increased due to the administration of high doses of glucocorticoids to patients with Covid-19 infection. As a result, patients had higher glucose levels, even if they had never had diabetes before. Blood was biochemically analyzed.

#### **RESULTS OBTAINED AND THEIR ANALYSIS.**

As a material for the research, from 05.03.2022 to 05.04.2022, 100 overweight patients were taken from 180 patients treated in the therapy and endocrinology departments of the OYDIN SHIFO clinic in Namangan. Of these, 54 were men and 46 were women. The age range of patients was 24-67 years in men, their mean age was  $52.9 \pm 1.1$ , in

women it was 18-75 years, and the mean age was  $56.5 \pm 1.4$  formed. The diagnosis was made on the basis of complaints, anamnesis, objective as well as paraclinical data when patients came to the hospital for treatment. Increased body temperature (83–99%), cough (59– 82%), general weakness (44–70%), loss of appetite (40–84%), shortness of breath (31– 40%), anemia (60-86%), muscle pain (11-35%) was observed in most cases.

Observed in the elderly and immunocompromised individuals: atypical course without fever, general weakness, decreased attention and physical activity, diarrhea, loss of appetite, loss of sense of smell (anosmia) or loss of taste (agevziya), respiratory started before the characters. Decreased immunity was due to leukopenia, lymphopenia. Inflammation of the respiratory system in patients was very rapid. In this case, the proliferative phase of inflammation passed into the scarring stage due to increased synthesis of internal components of connective tissue (collagen, elastic, proteoglycan, glocoproteins), and scattered scars were observed on the radiograph of the lungs. The patients developed scarring, inflammation, hypoglycemia (hypoxia) due to scarring, inflammation, and decreased hemoglobin levels, resulting in anemia.

Table 1

Jinsi	Fibrinoger	n <u>norma</u> 150	0-375 Ml/ll	Faollashgan tromboplastin vaqti Norma 27-36 sek		
	min	<u>o'rt</u>	mak	min	<u>o'rt</u>	mak
Erkaklar	250 Ml/ll	391 Ml/ll	512 Ml/ll	30.5 sek	≈35.2 sek	49.8 sek
Ayollar	272 Ml/ll	409 Ml/ll	640 Ml/ll	29.8 sek	≈37.6 sek	42.3 sek

Table 2

Jinsi	Kreatinin norma E;44- 113, A;44-97mmol/l			AlT norma <40 Ed/l			AlT norma <35 Ed/l		
2	min	<u>o'rt</u>	mak	min	<u>o'rt</u>	mak	min	<u>o'rt</u>	mak
Erkaklar	65	≈98.9	150	14	≈56.8	180	12	≈37.0	106
Ayollar	63.3	≈90.8	123	10	≈47.0	110	13	≈39.6	84

According to Table 1 above, heparin is prescribed to patients based on the results of coagulogram analysis of patients. According to Table 2, acute renal failure nephropathy was observed in 8 patients from men ( $\approx$ 14.8%) and 9 women ( $\approx$ 19.6) due to increased creatinine. Liver failure was observed in 19 patients ( $\approx$ 35.2%) and 14 women ( $\approx$ 30.5%).

Table 3





According to the table above, 11 of the men had 19% no previous diabetes mellitus and 6  $\approx$ 11.11 % had chronic diabetes. Thirteen of the women  $\approx$ 28.26% had no previous diabetes, and 4  $\approx$ 8.69% had chronic diabetes. We measured the body mass index (body weight divided by the square of height) and waist circumference of these 100 overweight patients. In total, we divided the number of 54 men and 46 women by 4 degrees according to body mass index and 2 degrees according to waist circumference. (Table 4) Decreased blood clotting time in patients with Covid-19 infection was due to increased platelets, fibrin fibers, and glucose. Patients who were overweight and had elevated blood glucose levels were prescribed Table 9 diet.

#### Table 4

Jinsi	Ortiqcha vazn	Semizlikning I-darajasi	Semizlikning II-darajasi	Semizlikning III- <u>darajasi</u>	Ortiqcha vazn	<u>Semizlik</u>	
	25.0-29.9	30.0-34.9	35.0-39.9	>40.0	Erkaklarda 94-102 sm Ayollarda 80-88 sm	Erkaklarda >102 sm Ayollarda >88 sm	
Erkaklar	16	26	8	4	24	30	
Ayollar	18	21	5	1	13	33	

Limit carbohydrate-rich foods in your diet and follow daily breathing and exercise routines.

### CONCLUSION.

From the above data, it can be concluded that when we examined the biochemical and urinalysis of blood in patients with Covid-19 infection, we saw an increase in glucose (+++).The average was 9.8 mmol / l in men, the highest was 28.3 mmol / l, the lowest was 4.1 mmol / l, the average was 7.1 mmol / l in women, the highest was 18 mmol / l, and the lowest was 3.9 mmol / l. Eleven of the 19 men and 12% of the women had no previous



diabetes mellitus, and the virus showed damage to the tail of the pancreas, resulting in increased glucose levels due to high doses of glucocorticoids, and patients showed clinical signs of diabetes. After an average of  $14 \pm 2$  days of treatment, glucose levels returned to normal in 95 (95%) of patients who had not previously had diabetes. In 3 (3%) men and 2 (2%) women, glucose levels were found to be above normal after recovery and the patients were monitored by an endocrinologist. Patients were ordered N<sup>o</sup> 9th diet table. Restrictions on carbohydrate-rich foods, spicy, salty, fried, carbonated and alcoholic beverages were ordered. Patients with Covid-19 infection were instructed to eat a proper and quality diet, pay attention to body weight, and perform daily physical and breathing exercises. Such patients are at risk of developing diabetes. After 30 days of rehabilitation, 5 (5%) patients with an increase in glucose after milking were collected with anamnesis by telephone and family clinic doctor after 30 days in 1 (1%) male, 1 (1%) the amount of glucose in women came out high. These patients were found not to have followed the recommendations given by the physician and were given a follow-up explanation.

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