

FEATURES OF RELIEF OF UPPER RESPIRATORY TRACT DISEASES INFECTED WITH COVID-19 IN PATIENTS WITH ENDOCRINOLOGICAL DISEASES

*Bukhara State Medical Institute
Sadullayeva Rushana Sadullayevna*

Clinical and epidemiological studies conducted during the COVID-19 pandemic prove the powerful negative impact of comorbid pathology on the severity and outcomes of SARS-CoV-2 viral infection. Concomitant diseases that are widespread and negatively affect the course of COVID-19 include cardiovascular diseases and diabetes mellitus (DM).

The aim of the study was to identify the features of the clinical and metabolic status and disorders of carbohydrate metabolism in hospitalized patients with the new coronavirus infection COVID-19 in combination with type 2 diabetes mellitus as the basis for optimizing glycemia management.

Materials and methods was initiated in a temporary infectious diseases hospital where 139 sequentially hospitalized patients with COVID-19 were observed. All of them were initially considered as candidates for participation and met the following criteria: 1) age ≥ 18 years, 2) informed voluntary consent to participate, 3) COVID-19 is available, confirmed by a smear from the nasopharynx and oropharynx, and 4) viral pneumonia by computed tomography (CT). 57 of 139 patients were characterized by hyperglycemia upon admission.

Results and discussion among 139 hospitalized COVID-19 patients, the most common comorbid pathology included hypertension (85 patients, or 61%), obesity (58 people, or 41.7%), coronary heart disease (36 patients, or 25.9%) and carbohydrate metabolism disorders (57 people, or 41%), including type 2 diabetes mellitus (42 (30.2%)), transient hyperglycemia ("conditional prediabetes" (13 (9.4%)) and type 1 diabetes mellitus (2 cases (1.4%)).

At the same time, patients with concomitant type 2 diabetes mellitus (group 1) were 2 times more likely to suffer from obesity (26 (61.9%) vs 25 (30.5%), $p=0.0008$), 1.7 times more likely to suffer from hypertension (35 (83.3%) vs 41 (50.0%), $p=0.0002$) and 1.8 times more often with coronary heart disease (17 (40.5%) vs 18 (22.0%), $p=0.026$). Also, at the time of hospitalization, patients with combined pathology were characterized by large volumes of lung damage (according to computed tomography (CT) - $49.9 \pm 15.61\%$ vs $42.1 \pm 19.13\%$, $p=0.017$), a decrease in the initial level of SP2 ($91.3 \pm 5.22\%$ vs $93.6 \pm 3.71\%$, $p=0.008$), high clinical scores risk on the SMRT-CO scale (2.5 ± 1.09 vs 2.0 ± 1.14 , $p=0.032$). In dynamics, they showed a delayed recovery of respiratory disorders, which was confirmed by a large volume of

lung damage by CT at the end of hospitalization ($45.5 \pm 20.20\%$ vs $32.0 \pm 15.93\%$, $p=0.0007$) and an extension of the normalization period of SP2 (10.5 ± 7.15 vs 4.8 ± 4.58 days, $p=0.00001$). As a result, against the background of DM 2, COVID-19 patients needed longer hospitalization (17.1 ± 4.71 vs 14.8 ± 5.10 days, $p=0.009$) and among them there were more adverse outcomes in the form of ICU treatment and/or death (13 (31%) vs 12 (14.6%), $p=0.030$).

Conclusions Among hospitalized COVID-19 patients, the most common comorbid pathology includes hypertension (61%), obesity (46%), coronary heart disease (25%) and carbohydrate metabolism disorders (41.7%), including type 2 diabetes mellitus (30.2%), transient hyperglycemia (9.4%) and diabetes mellitus Type 1 (1.4%). Patients with concomitant type 2 diabetes are 2 times more likely to be obese, 1.7 times more likely to have hypertension and 1.8 times more likely to suffer from coronary heart disease.

References

1. Kaiser UB, Mirmira RG, Stewart PM. Our response to COVID-19 as endocrinologists and diabetologists. *J Clin Endocr Metab.* 2020;105(5):dgaa148. Doi: 10.1210/clinem/dgaa148.
2. Boelaert K, Visser WE, Taylor PN, et al. Endocrinology in the time of COVID-19: management of hyper- and hypo- thyroidism. *Eur J Endocrinol.* 2020;183(1):G33–G39. Doi: 10.1530/EJE-20-0445.
3. Мокрышева Н.Г., Галстян Г.Р., Киржаков М.А., и др. Пандемия COVID-19 и эндокринопатии // Проблемы эндокринологии. —2020. — Т.66. — №1. [Mokrysheva NG, Galstyan GR, Kirzhakov MA, et al. Pandemiya COVID-19 i endokrinopatii. *Problemy endokrinologii.* 2020;66(1). (In Russ.)].