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RATE OF DEPRESSION IN SARS-CoV-2 PNEUMONIA AND HYPERTENSION CASE IN THE MIDDLE ISCHEMIC DISEASE FOUNDATION

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Abstract:COVID-19 diagnosis in the setting of ICU presents certain difficulties, as circulatory failure often masks the clinical manifestations of the underlying disease and complicates its timely diagnosis. It can be caused by typical manifestations of circulatory failure, including shortness of breath (at rest, during exercise), fatigue, tachycardia, tachypnea, wheezing during auscultation, and fluid accumulation in the pleural cavity. The course of ICU in the setting of COVID-19 has its own characteristics. Coronary artery thrombosis in the setting of COVID-19 can develop according to two main mechanisms: first, it manifests itself as a coagulopathy specific to the disease, and second, it manifests itself as a result of systemic inflammation and destabilization of coronary artery atherosclerosis in response to viral infection. The cause of the development of IHD in the context of COVID-19 is an imbalance between myocardial oxygen demand and oxygen delivery against the background of severe respiratory and hemodynamic disorders, as well as spontaneous dissection of the coronary arteries. According to data, IHD is one of the main causes of death among patients hospitalized with COVID-19.

Keywords: COVID-19, coronary heart disease, hypertension, cardiovascular system.

Introduction: According to the World Health Organization (WHO), every year 17.7 million people die from coronary heart disease (CHD), which accounts for 31.1% of total mortality. This figure has increased further during the SARS-CoV2 (COVID-19) pandemic. This is because the main risk group for COVID-19 infection is people with cardiovascular diseases, in particular, a population group with arterial hypertension (AH), CHD and diabetes mellitus (DM), who are at high risk of contracting coronavirus infection, and the main risk group is directly these patients. When studying the frequency of comorbidities against the background of COVID-19, the following data were found: hypertension (HD) (53.8%), DM (42.3%), CHD (19.2%), cerebral infarction (15.4%), chronic bronchitis (19.2%) and Parkinson's disease (7.7%).

In addition, acute cardiac complications from SARS-CoV2 infection increase the difficulty and complexity of treating patients. Thus, the development of cardiovascular complications in patients with pre-existing heart disease or during COVID-19 disease is a very important issue and may be a significant comorbid factor leading to death in COVID-19

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patients. COVID-19 is more severe in patients with cardiovascular disease, causing ACS complications and in some cases, death.

Scientists are closely studying the pathophysiological mechanisms of the COVID-19 virus and its interaction with the human lung and heart. According to several sources, the AAF2 inhibitor located in alveolar epithelial cells serves as a carrier of SARS-CoV2 to human lung cells. The first descriptions of patients with coronavirus infection, as well as previous experience in treating patients with MERS-CoV, have led to a discussion about whether the presence of comorbidities, including IBD, is associated with an increased risk of adverse outcomes.

Research methods.

The studies were conducted from 2020 to 2023 in the Samarkand branch of the Republican Scientific Center for Emergency Medical Care (RSCHEMC) and the Samarkand regional branch of the Republican Specialized Scientific Medical Center for Cardiology. The studies were conducted on 95 patients aged 35 to 75 years with HF and hypertension against the background of COVID-19. 38 of the patients were women, which made up 40.0%, and 57 were men, which made up 60.0%.

Patients with HF and hypertension against the background of COVID-19 had a large number of and various neurotic complaints. While most of them were symptoms of the disease, most were associated with dyscirculatory encephalopathy, a condition after cerebral circulation disorders. Attention was paid to determining the degree of depression in the disease according to the Beck scale. The scale has 21 category questions. Each question has 4 answers. Depending on the manifestation of symptoms, the answers are assigned a score of 0 to 3. 0 points - no symptoms. 3 points - maximum. The questionnaire is filled out by the patient. The sum of the scores ranges from 0 to 63 points. In the assessment, 0-9 points are considered to be no depression and nervous disorders, 10-15 points - mild depression (subdepression); 16-19 points - moderate depression, 20-29 points - severe depression (moderately severe) and 30-63 points - severe depression.

In our observations, the calculation of the points accumulated in 20 (21.0%) patients led to the conclusion that “no depression and nervous disorders” were observed. 75 (79.0%) patients had depression of varying degrees. Of all patients, 26 (27.4%) had mild (10-15 points) depression (subdepression), 26 (27.4%) had moderate (16-19 points) depression, and 23 (24.2%) had severe (20-29 points) depression.

When analyzing the level of depression by gender, mild and moderate depression was more common among women, and severe depression was more common among men. In our studies, there were no patients with severe depression (IV).

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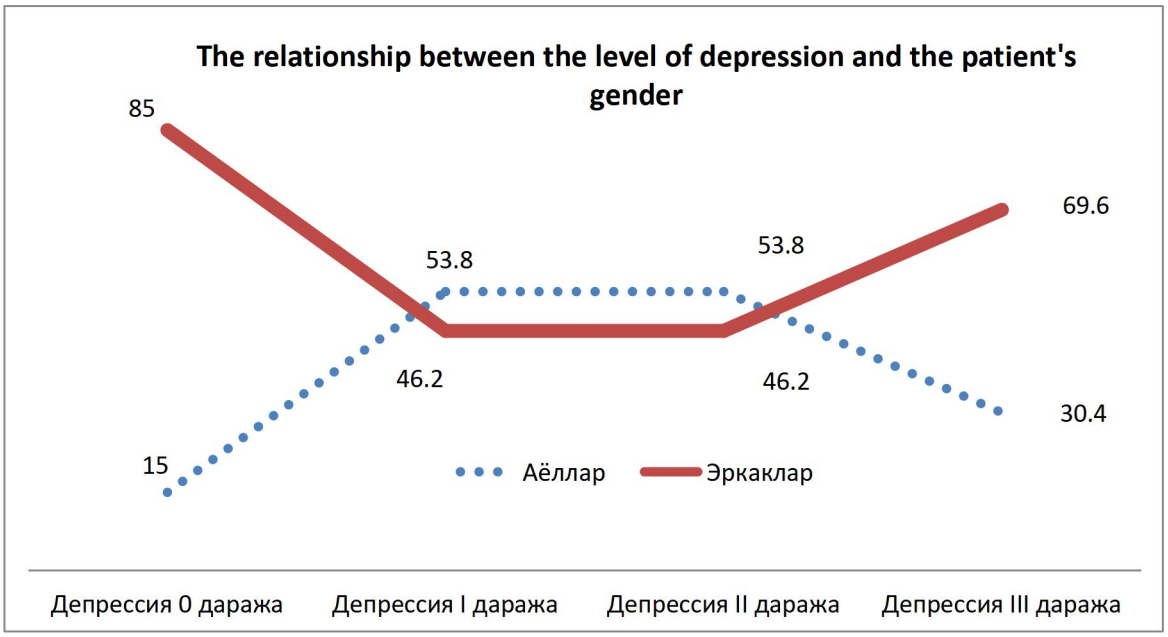

Although the degree of depression did not have a clear relationship with the age of the patients, the age of the patients with severe depression was the oldest, at 59.7 years. It was also found that the duration of the disease was the longest in severe depression.

The dependence of the degree of depression on the stages of the disease on the background of COVID-19 and the degree of IHD and arterial hypertension was analyzed, and severe depression was detected in the third stage of the disease with the third degree of IHD and arterial hypertension against the background of COVID-19

Table 1. Correlation of depression severity with clinical indicators of the disease

Description	**Total**	**Degree of depression**			
		0	**I**	**II**	**III**
Total	95	20 (21%)	26 (27,4%)	26 (27,4%)	23 (24,2%)
Women Table 1. Relationship of depression level to clinical indicators of the disease	38	3 (15%)	14 (53,8%)	14 (53,8%)	7 (30,4%)
Men	57	17 (85%)	12 (46%)	12 (46%)	16 (69,5%)
Mean age	53,8	41,8	59,2	53,5	59,7
Duration	7,4	3,3	8,5	7,7	9,4
Stage I hypertension	3	3 (15%)	-	-	-
Stage II	67	17	25	19	6

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hypertension		(85%)	(96,1%)	(73%)	(26%)
Stage III hypertension	25	-	1 (3,8%)	7 (26,9%)	17 (73,9%)
Stage I hypertension	3	-	3 (11,5%)	-	-
Stage II hypertension	51	8 (40%)	16 (61,5%)	19 (73%)	8 (34,7%)
Stage III hypertension	41	12 (60%)	7 (26,9%)	7 (26,9%)	15 (65,2%)
Angina	37	6 (30%)	9 (34,6%)	12 (60%)	10 (43,5%)
PICS	12	-	-	1 (3,8%)	11 (47,8%)
Heart failure	23	-	-	4 (15,3%)	18 (78,3%)
Arrhythmia	19	-	-	5 (19,2%)	14 (60,8%)
DVT	26	13 (65%)	7 (26,9%)	3 (11,5%)	3 (13%)
Stroke	5	-	-	1 (3,8%)	4 (17,4%)

The presence of comorbidities and complications of the disease led to an increase in the level of depression and the number of patients with depression. In moderate and severe depression, angina pectoris occurred in 60.0 and 43.5% of patients, respectively.

Conclusion

When determining the level of depression according to the Beck scale in patients with coronary artery disease and hypertension against the background of COVID-19, 79.0% of patients had depression of varying degrees, 27.4% had mild depression (subdepression), 27.4% had moderate depression, and 24.2% had severe depression. Mild and moderate depression was more common among women, and severe depression was more common among men.

The presence of comorbidities and complications of the disease led to an increase in the level of depression and the number of patients with depression.

Also, heart failure, post-infarction cardiosclerosis, and arrhythmias were detected only in moderate and severe depression.

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