Analysis of the Dynamics of Physiological Indicators during the Recovery Period of Physiological Activity of Organisms after Covid-19"

Bolta Kakhorov
National University of Uzbekistan named after Mirzo Ulugbek

Behzod Shodiev
Khujand State University named after B.Gafurov, Tajikistan

Abstract: The problem presented in this paper was to investigate the clinical analysis of the physiological activity of organisms during the recovery period after COVID-19. The majority of patients recover spontaneously or with acute-phase management, healthcare providers confronted with the long-term effects of COVID-19, known as "post-acute COVID-19 syndrome," which encompasses a wide range of symptoms.

Keywords: COVID-19, post-acute COVID-19 syndrome, recovery period, intense indications of the illness, control groups.

The coronavirus disease 2019 (COVID-19) pandemic, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has led to a significant number of fatalities and has put immense pressure on healthcare systems globally. The use of medical treatments such as anticoagulants, corticosteroids, anti-inflammatory drugs, oxygenation therapy, and ventilation, as well as the development of vaccines, has contributed to better patient outcomes. While the majority of patients recover either spontaneously or with acute-phase management, healthcare providers are now confronted with the long-term effects of COVID-19, known as "post-acute COVID-19 syndrome," which encompasses a wide range of symptoms. Although most studies have focused on hospitalized patients with severe COVID-19, it is important to note that acute COVID-19 syndrome can also affect outpatients.

Giventhe diversity of symptoms and the high predominance of diligent side effects, the administration of these patients requires a multidisciplinary group approach, which is able result within the consumption of large amounts of wellbeing assets within the coming months. In this survey, we talk about the introduction, predominance, pathophysiology and advancement of respiratory complications and other organ-related wounds related with post-acute COVID-19 disorder.

The coronavirus disease 2019 (COVID-19) widespread has influenced millions of patients around the world in recent months. The intense indications of the illness were detailed as early as the spring of 2020. Clinicians rapidly realized that the clinical introduction of the contamination shifted which it driven to asymptomatic shapes as well as serious shapes, in spite of the fact that the last mentioned are rare.

To date, acute respiratory infections remain a significant concern in the context of the ongoing COVID-19 pandemic, ranking as the leading cause of infectious disease worldwide. In 2019 and

2020, 650 million coronavirus cases were reported in 221 countries resulting in 665 million deaths, including 9999 cases in Uzbekistan among 248,000 patients with 1,637 deaths. Given the widespread impact of COVID-19 on individuals, the study of their physiological changes during recovery has become a crucial area of research. It is essential to investigate the etiology, physiology, clinical aspects, and significance of recovery in different regions.

As a result of the pandemic caused by COVID-19 in the world, scientific research is being carried out on the pathogenesis, etiology of the SARS CoV-2 virus, its impact on the normal physiological activity of humans, various strains of the virus, vaccination problems and the Prevention of various complications in the process of post-illness recovery. In this regard, special attention is paid to the clinical-biochemical and physiological indicators of the functioning of organisms during the recovery period after COVID-19, analysis of the state of their health, determining the observation of deviations in the indicators of vital organs and taking measures to eliminate them.
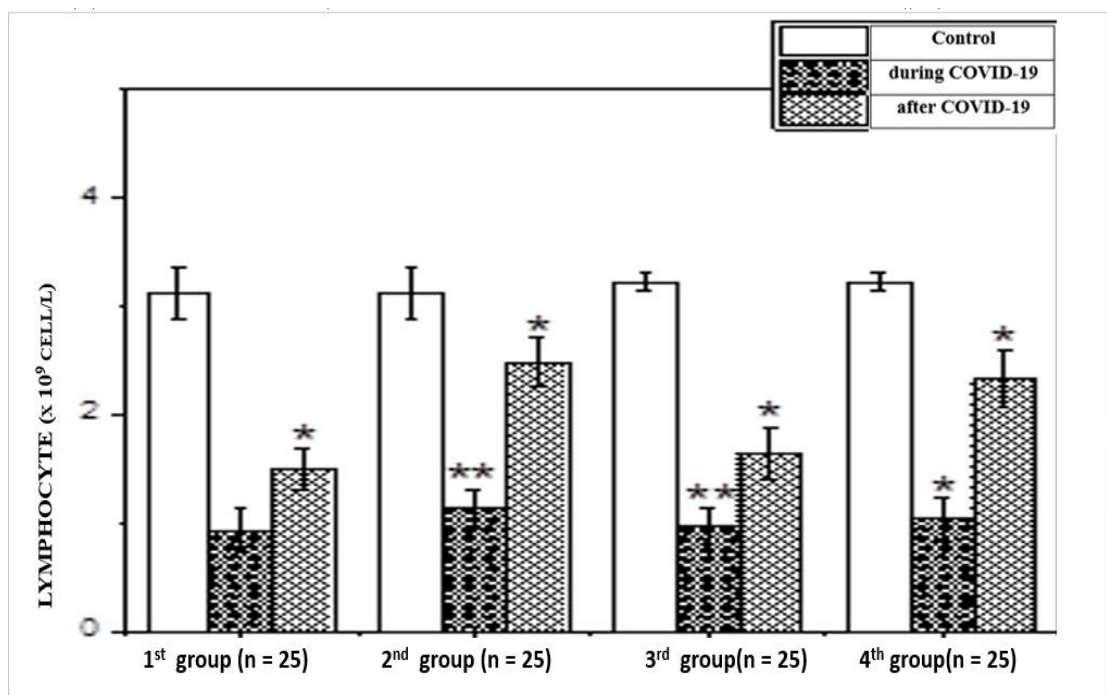
The aim of this study is to investigate the clinical analysis of the physiological activity of organisms during the recovery period after COVID-19.

Tasks of the research:

Analysis of clinical signs and functional indicators during and in the post-periods of COVID-19;

Identifying changes analysis of hematological indicators during and in the post-periods of COVID-19;

Analysis of the obtained results. Study participants were divided into 4 experimental and 2 control groups to analyze clinical characteristics in the post-COVID-19 period. For the 1st group, people with severe COVID-19, 2-3 months of recovery, under the age of 40, without chronic diseases were selected based on voluntary consent (n = 25). For the 2nd group, people with moderate and non-severe forms of COVID-19, 2-3 months after illness recovery, not over 40 years old, and without chronic diseases were selected on the basis of voluntary consent (n = 25). For the 2nd control group, healthy people not older than 41-55 years, not infected with COVID-19, (n=12). For the 3rd group, people with severe COVID-19, 2-3 months after illness recovery, no older than 41-55 years old, without chronic diseases were selected based on voluntary consent (n = 25). For the 4th group, people with moderate and non-severe forms of COVID-19, 2-3 months after illness recovery, aged 41-55 years, and without chronic diseases were selected based on voluntary consent (n = 25). In the groups, based on the questionnaire and standard methods, the following was determined: in the 1st group compared with the 1st control group, the results of heart rate were 12% higher, RR 12% and SBP 10% higher than in the control group. It turned out that people who recovered from a non-severe form of COVID-19 experienced an increase in HPV by 11% and 9%. It was assumed that this was the result of recovery from the effects of oxygen starvation during illness.

Conclusion. On the analysis of hematological indicators during and in the post-periods of COVID-19, it was found that the number of leukocytes increased by 26% during the disease period in severe forms in the group of 30-40-year-old participants (Fig. 1). The average age of which is 36.64 ± 2, 13, the average age was 46.1 ± 1, 87 in the second large group, leukocytes increased by 19.2% in the first group, 19.7% in the second group, and the amount of monocytes elevated for 4.0 times compared to the period of the disease.

References:

1. Akhmedova G., Zaripov B. New aspects of metabolism POST-COVID-19 // Web of sciensist: International scientific research journal. Indonesia, 2022. – V 3. № 12 P. 169-175. (№14, ResearchBib; №23, Scientific Journal Impact Factor, SJIF–5.9)

2. Zaripov B., Akhmedova G. Analysis of Peripheral Immune Cells in the Post-COVID-19 // International Journal of Virology and Molecular Biology. USA, 2022. – V 11. – № 4. . –P. 55-58 (03.00.00; №12)

3. Zaripov B., Allamuratov M., Akhmedova G.B. Analysis of the physiological activity of people who have recovered from COVID-19 in Uzbekistan // Infection, immunity and pharmacology - Tashkent, 2021. - No. 4. - B. 53-56. (03.00.00; № 7).

4. Efroim G., Zaripov B., Akhmedova G., Niyazmetov B. Nutrition: integrative approach and vision of the future. // Infection, immunity and pharmacology - Tashkent, 2022. - No. 3. - B. 9-17 (03.00.00; №7).

5. Mirzaev, U. N., Kuchboev, A. E., Mavlyanov, O., Amirov, O. O., & Narzullayev, S. B. (2024). Morphological and molecular characterization of root-knot nematodes from Uzbekistan. *Biosystems Diversity*, *32*(1), 135-141.

6. Yarkinboeva, M. R., & Kahorov, B. A. (2024). SPECIFIC CHARACTERISTICS OF THE DETERMINATION OF BIOLOGICAL TRACES OF CRIME. *Spectrum Journal of Innovation, Reforms and Development*, *28*, 32-33.

7. Kakhorov, B. A., Rasulova, S. L., Zhumakulova, G. S., & Shavkatova, H. R. (2024). COMPLEX EVALUATION OF BIOSTIMULANTS FOR PREVENTION OF IMMUNE SYSTEM DISORDERS AND HIGHLY PRODUCTIVE COWS AND IMPROVEMENT OF MILK QUALITY. *American Journal Of Biomedical Science & Pharmaceutical Innovation*, *4*(01), 39-45.

8. Kahorov, B. A., & Rasulova, S. L. (2023). INFLUENCE OF MODIFIED PEPTIDES FROM THE FETAL THYMUS ON THE ACTIVITY OF T-LYMPHOCYTES AND NATURAL KILLERS IN EXPERIMENTAL VIRAL HEPATITIS. *American Journal Of Biomedical Science & Pharmaceutical Innovation*, *3*(12), 48-55.

9. ЗАЙНИТДИНОВА, Д., & ХӮЖАМҚУЛОВА, М. Болта КАХОРОВ. *МУТАЦИОННАЯ ИЗМЕНЧИВОСТЬ ЯЧМЕНЯ В РАЗЛИЧНЫХ ВЫСОТНЫХ ЗОНАХ*.

10. Kayumov, K., Kuchkarova, L., & Kakhorov, B. (2021). Etiology of Pancreatitis and Rutin Treatment of the Disease. *Annals of the Romanian Society for Cell Biology*, 585-589.

11. Адилбеков, Т. Т., & Кахаров, Б. А. (2021). СПОРТЧИЛАРНИНГ ЖИСМОНИЙ ТАЙЁРГАРЛИК ЖАРАЁНИНИНГ ФАРМАКОЛОГИК ТАЪМИНОТИ. *Academic research in educational sciences*, *2*(2), 1128-1133.

12. GARIB, F. Y., KAKHOROV, B. A., KHUZHAMKULOVA, M. Z., & KUCHBOEV, A. E. (2021). Effect of modified peptides from fetal thymus on the activity of T-lymphocytes and natural killers and interferonindual activity of sanogen and betaleukin. *International Journal of Pharmaceutical Research (09752366)*, *13*(3).

13. Болта КАХОРОВ, ВЛИЯНИЕ МОДИФИЦИРОВАННЫХ ПЕПТИДОВ ИЗ ФЕТАЛЬНОГО ТИМУСА НА АКТИВНОСТЬ Т-ЛИМФОЦИТОВ И НАТУРАЛЬНЫХ КИЛЛЕРОВ.World of Scientific news in Science International Journal 2024 Vol 2 Issue 6