

## ORGANIZING REHABILITATION IN PATIENTS SUFFERING WITH CORONAVIRUS INFECTION AND THE ROLE OF PHYTOTHERAPY IN ENSURING THE EFFECTIVENESS OF REHABILITATION

*Nargiza Ulliyeva Yuldashevna*

*Teacher of the Department of Biochemistry and Clinical  
Biochemistry of Urgench branch of Tashkent Medical Academy*

*Sanjarbek Raximberganov Rustam ugli*

*4<sup>th</sup> course student of Urgench branch of Tashkent Medical Academy, Uzbekistan*

**Annotation:** In this article, information about the possible complications in patients with coronavirus infection, the role of rehabilitation in their elimination, oxygenoterapiya, breathing exercises and therapeutic physical exercises are presented. The organization of rehabilitation, the advantages of phytotea in nutrition, and information on medicinal plants and their properties in order to eliminate neurological changes in patients with coronavirus infection have been provided.

**Key words:** depression, oxygenoterapiya, balanced nutrition, ginseng, ephedra.

**Introduction.** At the end of December 2019, an unknown pneumonia epidemic caused by the new SARS-CoV-2 coronavirus (severe acute respiratory syndrome coronavirus) began in the People's Republic of China. On February 11, 2020, the World Health Organization officially named SARS-CoV-2 infection as COVID-19. Pneumonia is the leading clinical form of COVID-19. However, the spread of the COVID-19 pandemic and an analysis of clinical data revealed that the symptoms were "abnormal" and not typical of pneumonia. [6.1] We still don't know everything about Covid-19. In 2019, the coronavirus infection is a modern problem for the global community. [4.1] But many studies show that those who are already ill are more likely to develop long-term negative symptoms. In particular, our research has shown that one out of every 20 patients with bilateral interstitial pneumonia has grade II respiratory failure as a complication. It was found that even mild forms can lead to chronic pathology of the central nervous system and internal organs. COVID infection can also affect the cardiovascular system. Cases of myocarditis and damage to the heart conduction system through Covid have been proven. It is very difficult to treat such patients. In fact, in the closed covid department, all attention is focused on combating respiratory failure and eliminating temperature symptoms. And often problems with the cardiovascular system go into the background. As a rule, they are determined when the patient has symptoms of heart failure, shortness of breath, and rhythm disturbances after discharge from the hospital. [1.1] Therefore, post-coronavirus rehabilitation is essential for all patients. Today, it is known that the coronavirus infection primarily affects the respiratory and cardiovascular systems. But the virus can have a negative effect on the kidneys, organs of the gastrointestinal tract, liver, and brain cells. Weakness, fatigue, drowsiness are the first symptoms to appear. The reason for their origin is not only intoxication, but also complications. Against the background of Covid-19, even mild lung damage leads to the development of hypoxia. Lack of oxygen

leads to disruption of metabolic processes, synthesis of enzymes, deterioration of blood circulation. As a result of hyperthermia, fluid loss and electrolyte imbalance are disturbed. Therefore, a decrease in strength and a lack of energy are very understandable phenomena after such severe disorders. Despite the lack of accurate data, according to Russian experts, the decrease in lung function and impairment may last one year in every fifth patient. In parallel with asthenia, even in mentally healthy patients, psycho-emotional disorders are often observed. They manifest themselves:

- depressive symptoms;
- behavior disorders;
- sleep disorder.

It is almost impossible to deal with the diseases that appeared after the coronavirus without rehabilitation, especially if the disease appeared in a severe form. Currently, in many developed countries, patients suffering from the coronavirus infection are undergoing rehabilitation. In addition, many clinics offer rehabilitation programs. Their main goals:

- \* restore respiratory function;
- \* improve general physical condition;
- \* coping with stress;
- \* elimination of muscle weakness;
- \* increase efficiency.

The following methods are used for recovery:

**Objective Statement.** Oxygen therapy consists of a course of breathing and oxygen cocktails. The procedure improves oxygen supply to cells, strengthens the immune system, helps restore respiratory function and fight shortness of breath. Therapeutic physical exercises - the course begins with minimal physical exercises that gradually increase. The first sessions last a few minutes under the control of blood pressure and saturation. Breathing exercises. Currently, there are various types of breathing exercises, but before doing them, you should consult a pulmonologist, because some methods can be dangerous after artificial lung ventilation. A balanced diet contains the necessary nutrients. At the same time, the product should be gentle on the liver and cardiovascular system. Recommendations for preparing a diet for patients are given by a doctor-dietitian. Rehabilitation after covid in sanatoriums additionally includes swimming, treatment with the microclimate of salt caves.

**Materials nad Methods.** Medications for rehabilitation. Most doctors believe that a minimum amount of medication should be used during recovery. . The appointment of a combination of drugs should be carried out taking into account the individual assessment of benefits and risks, since there is sufficient evidence of serious side effects such as prolongation of the QT interval, hepatotoxicity, side effects, central nervous system infections caused by coronaviruses. it is necessary to evaluate the interaction of drugs used in treatment with drugs used in outpatient practice. [5.11] Very strong and very toxic drugs are used to treat infection (especially severe forms). Therefore, to reduce the burden on the liver and kidneys, leave only the minimum necessary drugs. These include: Anticoagulant drugs; means for normalizing metabolic processes; mild sedatives; antidepressants, tranquilizers. The virus has a negative effect on the body. But correctly selected rehabilitation methods allow almost complete recovery from disorders. The main thing is to take the full course immediately after the end of treatment, regardless of the effect of the disease. It helps to significantly reduce the risk of serious consequences and restore strength and energy in a short time. Medicinal plants may not cure all diseases, but unlike synthetic drugs, they do not cause much harm. [2.1] In addition, organizing rehabilitation with phytotherapy has a number of positive and

superior aspects: Medicinal plants are a factor that has been tested for many centuries, has a physiological effect on the body, because due to the continuous formation in nature, plants and the structure of the cells of the human body are very close to each other. The effect of medicinal plants on the pharmacokinetics of drugs has not been sufficiently studied and seems to be an important and promising direction of pharmacological control activities. Interesting interactions have been identified: St. John's wort and preparations based on it can cause the induction of certain reactions and reduce the therapeutic effect when used together with drugs: lopinavir, remdesivir, umifenovir, nirmatrelvir; the cardiotoxic effect of interferon can be reduced by using medicinal plant materials containing cardiac glycosides; the combination of ferulic acid with peginterferon alfa-2a increases the risk and severity of bleeding. [3,11] Chemical substances obtained by synthesis are foreign to the human body, they are extremely active and can destroy the structure of the complex molecules of the body, sometimes creating new compounds that are more active and toxic to cells. Licorice root is one of the most powerful natural herbal remedies. In addition to the ability to fight cough, eliminate lung and bronchial inflammation, licorice root is also able to effectively fight the virus, inhibiting its activity and preventing the latter from spreading to human cells. [2.1] Among them, taking into account psycho-emotional changes in patients, it is advisable to use plants that stimulate the central nervous system: **Results and Discussion**

Manchurian aralia, ginseng, echinopanax, moss-like leuzea, Chinese schizandra, ephedra. All the mentioned plants have a stimulating effect on the central nervous system. Increases the mental and physical capacity of a person, relieves fatigue, has an anti-stress effect, improves the body's endurance and adaptability to adverse conditions (ginseng, eleutherococcus). Some plants (kuchala, sardine) raise blood pressure. Other plants (eleuterococcus, ginseng) improve blood circulation in the brain. These plants are used to increase the tone of the nervous system, to treat arterial hypotension, and to stimulate the respiratory center. Therefore, it is necessary not only to treat the disease caused by the coronavirus infection in an inpatient setting, but also to properly organize rehabilitation. In this case, the use of natural medicinal plants leads to faster recovery of the patient's health and less side effects, which is an advantage over synthetic drugs. It also has a great role in eliminating the side effects of anti-infective drugs.

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