



Reasoned Opinion

Post-COVID-19

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Abstract

After recovery from the coronavirus, there is a post-COVID period that lasts for 12 or more weeks. The degree of severity of the coronavirus infection directly affects the severity of subsequent symptoms of the disease. In addition to damage to the respiratory system and internal organs, the COVID-19 virus is also characterized by disruption of the functioning of the central nervous system, neurons and glial cells. As a result, some patients have various neurological problems even after complete recovery.

Key words: coronavirus infection, post-disease symptom.

Coronavirus disease 2019 or Covid-19 is a severe acute respiratory disease caused by the coronavirus SARS-CoV-2. Mainly it is transmitted by inhaling air containing the coronavirus from infected people when they breathe, talk, cough, sneeze, or sing. The virus is more likely to be transmitted when people are in close proximity, although infection can spread over long distances, especially indoors [1].

Covid-19 often damages the ciliated epithelium of the upper (nose, sinuses) and lower respiratory tract (trachea and lungs). However, Covid-19 most often affects the lungs. Patients develop a fever, cough, and shortness of breath, as well as interstitial pneumonia [2].

Covid-19 is often fatal. The main cause of death is acute respiratory distress syndrome. However, significant changes also occur in other organs, primarily in the cardiovascular system, leading to multiple organ failure and death. Risk factors of the disease have been identified and include age (over 65 years), diabetes mellitus, coronary heart disease, chronic obstructive pulmonary disease, and chronic kidney disease [3].

After suffering from coronavirus, a post-Covid period begins, which lasts 12 or more weeks.

Doctors believe that post-Covid syndrome is a comprehensive diagnosis accompanied by psycho-emotional consequences. The severity of coronavirus infection directly



affects the severity of subsequent symptoms. According to experts, coronavirus reveals conditions that are not detected in other diseases.

General symptoms and psycho-emotional problems of post-Covid syndrome are reflected in the table below.

General symptoms of post-Covid syndrome	Marked weakness	Expressed throughout the whole body
	Fast fatigability	Observed even under light loads
	Circadian cycle disruption	Expressed by drowsiness or, conversely, insomnia, when a person is awake at night and sleeps during the day
	Muscle pain	A loss of protein caused by coronavirus pathology negatively affects the muscle tissue
Psycho-emotional state	Depression	Manifested by melancholic attacks, despair, depression
	Emotional abnormalities	Manifested by uncontrollable behaviour and frequent mood swings
	Panic attacks	Develops against a background of a deteriorating overall condition

The COVID-19 virus is characterized not only by damage to internal organs, but also by disruption of the functioning of the central nervous system, neurons, and glial cells. As a result, patients experience various neurological problems even after complete recovery. Most often:

- Constant or periodic headache, sometimes a throbbing headache.
- Failures in thermoregulation. After coronavirus, some people experience a

persistent fever (37-37.5 degrees), while others, on the contrary, have a low temperature (36.0 degrees and below). Sometimes people experience shivers with muscle tremors, especially at night, but without a fever:

- Visual impairment. Blurred vision, increased sensitivity to light, and dark spots in the field of vision.
- Signs of paraesthesia. Some people describe a burning or tingling sensation,



other people report trembling. Taste abnormalities and loss of smell are common [6].

In the post-Covid period, pain in muscles and joints is common, it is especially pronounced in elderly patients who have suffered a moderate or severe form of Covid. Often these complications are combined with damage to muscles, tendons, joints, and other organs. In young people who had a mild form of the disease, complications are observed less frequently. In any case, the appearance of the first symptoms requires increased attention to treatment aimed at the relief of the pathological processes caused by the SARS-COV-2 in connective tissues [4]. However, there are cases when the disease is asymptomatic [7].

Arthritis and other connective tissue lesions in the post-Covid period develop as a result of acting as stimulators of inflammatory processes. They are transported via the bloodstream to various parts of the body, joints, muscles, or organs, where they can cause inflammation [5].


Autoimmune processes are also important. Antibodies produced during disease, in addition to destroying the virus also destroy body cells infected with coronavirus. At the same time, specific antibodies that attack healthy cells and thus cause rheumatoid arthritis and other pathologies are produced. These processes can be observed in patients for quite a long time, from several weeks up to 3-6 weeks or months [8].

People infected with coronavirus often have fluctuating blood pressure. Against this background, the following symptoms may develop:

- dizziness;
- weakness;
- shortness of breath episodes;
- nausea;
- obfuscation;
- conditions close to nausea, etc.

Currently, post-Covid treatment is ineffective, and the only reliable method of prevention is vaccination, which ensures, in case of infection with Covid-19, alleviation of its course and, accordingly, a minimization of complications.

პოსტ-COVID-19

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აბსტრაქტი

კორონავირუსის გადატანის შემდეგ დგება პოსტკოვიდური პერიოდი, რომელიც გრძელდება 12 ან მეტი კვირის განმავლობაში. კორონავირუსული ინფექციის სიმძიმის



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