

FEATURES OF COGNITIVE AND EMOTIONAL DISORDERS IN PATIENTS WITH POSTCOVID SYNDROME

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Abstract

Neurological and mental disorders of the central nervous system can occur with every severe infectious disease; Currently, in the context of the coronavirus pandemic, this is one of the leading complications of viral damage. Almost all survivors of COVID-19 suffer from asthenia, anxiety disorders and depression. Of particular concern is the development of cognitive impairment of varying severity. It was found that cognitive impairments were detected in the studied groups: the rate of information processing slows down, short-term and long-term memory, productivity and accuracy of tasks suffer.

Key words: *cognitive impairment, Covid-19, reactive anxiety, personal anxiety, information processing rate.*

Relevance. Despite the fact that acute respiratory disorders and the possibility of their correction are detected in COVID-19, it is significantly realized that many patients who have been ill no longer have an acute infectious disease in the center, in some cases of PCR test, severe persistent physical, cognitive and cognitive disorders. mental disorders.

Neuronal manifestations in patients who have undergone COVID-19 are covered by the fact that the infection itself can damage nerve fibers, vascular endothelium, probably as a consequence, and systemic exposure. As for the central functions of the brain, they are disrupted due to the formation of viral, dysmetabolic, cytotoxic, vascular examination, accompanied by cerebral edema and, as a result, leading to neuronal degeneration. Almost all patients who have undergone COVID-19 have asthenia, anxiety disorders and depression. Special anxiety in patients with cognitive disorders of varying severity. Currently, the issue of the reversibility of cognitive functions and sensations, and the preservation of their severity, remains insufficiently studied.

Thus, the development of a differentiated treatment program for patients with cognitive impairment, depending on the etiopathogenic mechanism of their development, as well as the prediction of prevention disorders, correction of risk indicators is relevant and socially perceived.

The purpose of the study was to identify the features of clinical neurological and neuropsychological disorders in patients with postcovid syndrome.

Materials of research methods:

The examination of patients was conducted on the basis of the Bukhara regional multidisciplinary Medical Center and the private clinic "Kahramon-Rahimjon". At the first stage of the study, a screening clinical examination and selection of patients are carried out. The study involved 100 people of average and middle age from 30 to 55 years old, with a verified diagnosis of the effects of COVID-19 coronavirus infection, confirmed by laboratory research methods and after receiving the results of the results (PCR, ELISA) for SARS-CoV-2, 15 to 35 weeks after the onset of the diseases that make up the aggregate.

At the second stage of the study, patients were mainly divided into subgroup I – 70 people who underwent COVID-19 in a consistent form and subgroup II – 30 patients who suffered from the disease in a moderate and complicated form of pneumonia.

All patients undergo standard therapy: vitamin and mineral complex, back muscle massage, relaxing, inhalation with refined water according to indications.

The control group consisted of 20 healthy subjects of the appropriate gender and age composition who had not suffered from coronavirus infection or viral infection in the last 6 months and had not observed acute and decompensated chronic disease at the time of observation.

All patients do not need decompensated chronic therapy. The studies identify patients with French concomitant decompensated pathology, type 1 diabetes mellitus, and oncological diseases.

The diagnosis of postcovid syndrome was established in accordance with the decision of the postcovid investigation proposed by the National Institute of Health and Excellence (NICE) UK and WHO–approved (postcovid syndrome - symptoms that occur within 12 weeks, not explained by an alternative diagnosis, can change over time, disappear again and reappear, many body systems are detected).

Research and discussion results:

Due to the infection with the Covid-19 pandemic, much attention is currently being paid to the mental state of the population. It is noted that the main mental consequences of the pandemic are expressed in increased levels of stress and anxiety.

Testing of group follow-up on the Spielberger-Hanin scale revealed higher rates of personal and reactive anxiety in patients with coronavirus infection in accordance with the moderate to severe form and

As a result of the analysis of the level of anxiety disorders, it was revealed that in patients in the main group it increases as in the control group. A comparative intra-group analysis of the level of anxiety in patients with postcovid syndrome allows us to identify its high rates in the group of those who suffered from a moderate form of coronavirus infection. The increased level of reactive anxiety (RT) was detected higher in the control group in 56.7% of cases, whereas in patients with the main group – in 82%, which occurred ($p < 0.001$).

An intragroup analysis of RT indicators revealed high rates in the group of those who had a moderate-severe coronavirus infection, which differed from that of those who had a selective infection easily ($p < 0.001$).

It was found that the level of personal anxiety (LT) as a stable innate characteristic of personality was higher in patients of the main group – in 76%, and exceeded the indicators of the control group – in 20% ($p < 0.001$).

An analysis of the severity of anxiety disorders showed that RT is more pronounced, exceeding the level of LT, which is explained by the reaction to the Covid 19 disease.

In patients of the second group, the RT indicators were the most pronounced, the manifestations of the postcovid syndrome were more severe. However, an increased level of reactive anxiety also occurred in the observed control groups, which is associated with the emergence of a pandemic, fear, an alarming association with isolation and post-pregnancy activities.

When checking the intragroup analysis, data were obtained indicating that the patient groups were higher than the inherent high severity (from 30 to 45 points) and high (from 46 points and level) anxiety, especially the increased level of LT and RT was more pronounced in patients who had suffered a moderate and standard coronavirus infection.

As a result of the assessment of the dependence of anxiety indicators and the presence of complaints and changes in neurological status in patients with postcovid syndrome who have suffered a moderate coronavirus infection and complicated by pneumonia.

There was a moderate positive correlation between LT and the presence of headache, between RT and the presence of dizziness, a weak positive correlation between reactive anxiety and tremor of the fingers and distal hyperhidrosis.

The rate of recovery from diseases was slower in patients of the second group with higher LT levels. A high level of LT and RT affects the course and recovery after a coronavirus infection, changes the patient's attitude to therapy, commitment to rehabilitation measures and believes in a positive result of treatment.

Pathological fatigue (asthenia) in patients with postcovid syndrome. All patients were fatigued by painful symptoms, manifested as a pathological phenomenon not manifested by high physical activity, and extremely high sensitivity to functional capabilities and work capacity. The most pronounced manifestations of asthenia were observed in patients with an acute period of coronavirus infection, which persisted in the postcovid period with varying degrees of severity.

When fatigue was detected according to the IFI-20 asthenization questionnaire, possible values were established:

1. The level of general asthenia in patients with postcovid syndrome occurs (78.0%), the higher in the control group (23.3%) ($p < 0.001$).

2. The severity of physical asthenia in patients with the main group occurs higher (57.0%) than in the control group (10.0%) ($p < 0.0013$)

- . Decreased activity was observed in patients with frequent cases (69.0%) in individuals with the control group (20.0%) ($p < 0.001$).

4. Decreased motivation in patients with postcovid syndrome was detected more often (48.0%) than in the control group (13.0%) ($p < 0.001$).

5. Signs of mental asthenia are observed in patients with postcovid syndrome more frequently (48.0%) than in the complicated control group (3.3%) ($p < 0.001$).

Data on the highest rates of general, physical and mental asthenia in patients with postcovid syndrome in the observation subgroups were obtained.

An analysis of the level of asthenia depending on the severity of the coronavirus infection showed that it was higher in patients with coronavirus infection, depending on the moderate form. The average level of physical development of patients was 12.0 ± 1.8 points in patients of the first subgroup with mild coronavirus infection in the acute period, and in severe and moderate cases (subgroup 2) it already reached 16.0 ± 2.1 points.

Reliable statistics have been established, a significant positive correlation between indicators of general, severe fatigue and the consequences of severe and moderate course of coronavirus infection in the acute period ($p < 0.004$, $r = 0.315$). Patients with the first subgroups have high levels of general and physical asthenia, and patients with the second subgroups also have high levels of mental asthenia. With increasing severity in patients with coronavirus infection, the severity of asthenic manifestations. Patients of the 2nd subgroup have a higher degree of asthenia and an increased sensitivity to decreased motivation.

The study of individual cognitive functions in patients with group observation. The analysis of the severity of cognitive functions in patients with postcovid syndrome and in the control group is carried out based on the results of the use of neuropsychological tests. According to patients, memory loss is also observed in the acute period of the disease, but diagnostic tests are not detected in the acute period). Patients with coronavirus infection do not complain of memory loss and attention.

In patients who suffered from coronavirus infection, memory disorders (associative, severe and long-term), attention, memory productivity, and a slowdown in the pace of information processing (TOI) were recorded. Mild and moderate cognitive impairment has already been detected in patients who have had coronavirus infection in a gradually established form in 54% of patients with the first subgroup and in 76% of patients with the established second subgroup.

Indicators of severe, long-term and associative memory in patients of the second subgroup were lower than in healthy individuals and in patients of the first subgroup.

One of the most common cognitive disorders in patients with the inflammatory group who suffered from coronavirus infection was a slowdown in the rate of information processing (TOI) and was detected in 86% of patients with postcovid syndrome.

As a result of the analysis of the results of the Bourdon correction test, it was found that violations of attention stability, memory productivity were revealed, and in patients with postcovid syndrome they exceed those in the control group ($p < 0.001$). In patients with postcovid syndrome, patients with postcovid syndrome have increased clock values in the second subgroup of observations ($p < 0.01$).

Significant statistical cases of correlation were revealed: direct – between the severity of diseases in the acute period and a high level of high memory ($p = 0.004$; $r = 0.294$); direct –

between the severity of diseases in the acute period and the level of long-term memory ($p < 0.001$; $r = -0.425$);

Associative memory is not dependent on the severity of the coronavirus infection in the acute period and was found lower, both in the first period and in the second subgroup of observation in the detection with the detection of observation and does not matter the intergroup differences depending on the severity of the disease in the acute period.

An intragroup analysis of the identification of identified cases of increased productivity in completing tasks and the frequency of completing tasks in patients who have suffered from moderate coronavirus infection and forms of inquiry with pneumonia, especially often in such patients, a decrease in endurance and attention was revealed.

An inverse relationship was revealed in patients with postcovid syndrome on indicators of high and long-term memory: the easier it was for coronavirus infection in the acute period of the disease, the higher its TOI.

Thus, a comparative analysis of neuropsychological characteristics in the observation rooms showed that patients with coronavirus infection require higher rates of both RT and LT in detection with the control group ($p < 0.001$).

there was a moderate (from 30 to 45 points) and high (from 46 points and above) level of anxiety, which is more pronounced in patients who have suffered a coronavirus infection with pneumonia. LT inevitably exceeded the level of RT, which was accompanied by infection of this innate feature in those who had a coronavirus infection. In patients with moderate to severe coronavirus infection during severe periods, LT was more intense, and in patients with severe coronavirus infection, it turned out to be more severe.

High levels of LT and RT cause a longer course of diseases in the acute period and an increase in the severity of its course, affecting the attitude of patients to the therapy.

Fatigue rates were higher in patients with postcovid syndrome than in the control group. Pathological fatigue (chronic fatigue). ($p < 0.001$).

With mild coronavirus infection in the acute period of moderate physical asthenia, 12.0 ± 1.8 points, then with severe exacerbation with pneumonia it already reached 16.0 ± 2.1 points ($p < 0.001$).

With postcovid disorders with a mild course of coronavirus infection in the anamnesis, an increased level of general and physical asthenia was revealed, with a severe course of coronavirus infection, the level of mental asthenia increased in the anamnesis.

In patients with postcovid syndrome, cognitive impairment was detected, TOI was delayed, severe and long-term memory, productivity and accuracy of task performance suffered. One of the most common cognitive disorders was a slowdown in TOI.

An intragroup analysis of patients with a history of severe coronavirus infection complicated by pneumonia, in contrast to patients who had suffered a coronavirus infection in the form without pneumonia ($p < 0.001$). Patients with this postcovid syndrome have high rates in the group with a history of COVID-19 stress ($p < 0.01$), especially often patients show a decrease in concentration and attention.

The inverse relationship between the indicators of high severity and long-term high severity of the disease was revealed: the easier the patient's history of coronavirus infection was, the higher his TOI.

Conclusions. Thus, patients of the main group showed high rates of LT and RT, while moderate (from 30 to 45 points) and high (from 46 points and a level) anxiety were often higher, which was more pronounced in patients of the second subgroup. Reactive anxiety was increased in all mass observations, which is associated with the Covid 19 pandemic, fear of disease, isolation and other antiepidemic manifestations, however, patients had a coronavirus infection with a moderate and characteristic form of RT manifestations were more sensitive, and postcovid syndrome more pronounced. Personal anxiety arose in patients with a coronavirus infection, It was found that cognitive disorders were detected in standard groups. TOI slows down, the structure, long-term memory, productivity and accuracy of the task are compiled. One of the most common cognitive disorders was a slowdown in TOI, which occurred in almost all patients who had a coronavirus infection.

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