Evaluation of Neurotic Disorders in the Post-Covid Period and Treatment Tactics

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ABSTRACT

Coronavirus infection (COVID-19) is an infectious disease characterized by a relatively high contagiousness and the likelihood of developing severe complications in the form of acute respiratory distress syndrome, acute respiratory and multiple organ failure. The pathogenesis of coronavirus infection has not been studied enough, it has been spreading around the world for the second year. The virus is neurotropic and can directly damage brain structures such as the limbic system and hypothalamus [6].

Keywords: respiratory distress syndrome

Relevance. Coronavirus infection (COVID-19) is an infectious disease characterized by a relatively high contagiousness and the likelihood of developing severe complications in the form of acute respiratory distress syndrome, acute respiratory and multiple organ failure. The pathogenesis of coronavirus infection has not been studied enough, it has been spreading around the world for the second year. The virus is neurotropic and can directly damage brain structures such as the limbic system and hypothalamus [6]. Among the various complications after an illness, a significant proportion of patients may develop cognitive disorders: impaired memory, attention, concentration, or speed of thought processes [2,4]. During the study, the authors found that half of patients with coronavirus infection experience a serious level of anxiety and 40% fear that they themselves or their loved ones can become seriously ill with COVID-19 and die [1,5]. Psychopathological symptoms in COVID-19 were as follows: anxiety - 12-20%, depression - 15-25%, insomnia - 8% and traumatic stress - 35-49% [3]. Based on these data, neurosis-like disorders in the post-COVID period are of great interest and require the development of treatment tactics.

The purpose. Systematization of information about neurosis-like disorders in the post-COVID period and improvement of the quality of life of patients.

Research objectives. The objective of the study is to study the manifestation of neurosis-like disorders and substantiate new directions of differentiated therapeutic tactics.

Material and research methods. Neurosis- like disorders were studied in the post-COVID period in 46 patients. The average age of the patients was 45 years. All patients were divided into two groups: the first group received basic therapy with nootropic drugs, and the second group, in addition to basic therapy with nootropic drugs, was prescribed the antidepressant rexetine (paroxetine) at a dose of 20 mg 1 time per day for 3 months. After 3 months, the effectiveness of treatment of patients in both groups was evaluated.

Results and discussions. Rexetin was administered at a dose of 20 mg in the morning for 30 days. The condition of patients was assessed before taking the drug (visit 1) and after 15 days (visit 2) and 30 days (visit 3) of treatment. To evaluate the effectiveness of the correctionemotional-volitional sphere used a point scale of subjective characteristics, a personal and situational scale of anxiety and depression. Each patient received a complex-individual approach. When assessing personal and situational anxiety on the Spielberg-Khanin scale in the post-COVID period, a high level of anxiety prevailed in situational anxiety, and an average level of anxiety prevailed in personal anxiety.

Table 1

Spielberg-Khanin scale of personal and situational anxiety in the post-COVID period before treatment

Type of anxiety	Low Anxiety		Average level of anxiety		High level of anxiety	
	Abs.	%	Abs.	%	Abs.	%
situational anxiety	12	26.1	14	30.4	20	43.5
Personal anxiety	10	21.7	24	52.2	12	26.7

After treatment on the 30th day, the indicatorsin both groups on a scale of situational andpersonal anxietywith a high level of anxiety turned into a low level of anxiety.Most patients who underwent COVID-19 experienced severe asthenia, anxiety, depression and fear of death.

Table 2

Spielberg-Khanin scale of personal and situational anxiety in the post-COVID period after treatment

Type of anxiety	Low Anxiety		Average level of anxiety		High level of anxiety	
	Abs.	%	Abs.	%	Abs.	%
situational anxiety	26	56.5	11	23.9	9	19.6
Personal anxiety	29	63.1	9	19.5	8	17.4

Among hospitalized patients, anxiety, confusion, depressed mood and insomnia, as well as impaired attention and memory, were observed in approximately 35%.

Table 3

Scale for assessing the level of reactive and personal anxiety Ch.D. Spielberg and Yu.L. Khanina

Patient group	Test by C.D. Spielberg and Yu.L. Khanin	
	Before treatment	After treatment
Comparative group	44.6±0.7	31.4±0.7*
Main group	46.5±0.8	19.7±0.5*,**

Note: * - significantly compared to before treatment P<0.001; ** - significant compared to control P<0.001

Neurosis-like disorders led to a decrease in the quality of life and a violation of the stability of work. About 60% of patients suffered from insomnia, approximately 20% had suicidal thoughts. In 50% of patients, subdepression was observed, 55% - anxiety, about 60% - psychosomatic symptoms.

Table 4

The severity of asthenic disorders in the post-COVID period

Syndrome options	The severity of asthenic disorders		
	Moderately pronounced	Pronounced	Total

Asthenic	4	5	9
Astheno-depressive	7	7	14
Astheno-hysterical	3	2	5
Astheno-obsessional	5	3	8
Astheno-hypochondriac	4	2	6
Asthenic with personality changes	3	1	4
Total	26	20	46

We observed a distinct increase in astheno-adynamic symptoms from 7-12 days of treatment. Against the background of these disorders, a headache appeared, which had a classic "neurasthenic" color. Patients became incapable of emotional, intellectual and physical stress, emotional lability, sensitivity, and a tendency to respond inadequately to all kinds of psycho-traumatic influences intensified. The development of asthenia and emotional stress was characterized by cyclicity. More often in the morning, within 6-12 hours, against the background of severe hypothymia, it arose and quickly covered the entire emotional sphere.

According to the results of objective and subjective data, the symptoms of disturbance of the emotional-volitional sphere were noted already on the 3rd day of the disease and persisted even 30 days after treatment. Evaluation of mood according to the results of the Hamilton test and asthenia (according to the Apathy and Asthenia Scale) was observed in both groups. The main symptoms of asthenia were observed in patients in the form of a change in appetite - 34%, absent-mindedness - 32%, mood instability - 22%, increased excitability with subsequent exhaustion - 29% and increased fatigue - 22.5%.

In the combined treatment group (notropes and rexetine), the average improvement in the condition was superior to the basic therapy group. According to the Apathy and Asthenia Scale, in the combined treatment group, compared with the basic therapy group, there was a significantly greater decrease in the severity of such symptoms of asthenia, absent-mindedness, mood instability, increased excitability followed by exhaustion, and increased fatigue.

Table 5
Indicators criteria for quality of life in the post-COVID period

Quality of life criteria	Notropes (n=24)		Notropes + rexetine (n=22)	
	1st day	30th day	1st day	30th day
General health	46.7±2.3	54.6±1.3	47.4±4.6	69.7±2.3
Physical activity	45.9±3.9	52.1±3.4	46.1±3.8	70.9±3.9
Functioning related to physical condition	48.9±2.7	55.4±2.1	49.6±3.6	68.9±2.7
Functioning related to emotional state	54.3±2.4	59.4±2.8	53.2±4.8	74.3±2.4
Social functioning	55.1±3.2	60.7±2.5	54.2±3.7	68.1±3.2
Pain intensity	56.7±3.1	59.8±1.3	56.8±4.5	66.7±3.1
vital activity	46.6±2.9	52.0±1.4	47.5±3.5	68.6±2.9
Psychological health	49.5±2.8	53.5±1.2	48.3±4.4	65.5±2.8

The evaluation of the therapeutic efficacy of rexetine in the post-COVID period was carried out on the basis of the Hamilton Scale (HDRS). With the use of rexetine against the background of improved mood, a more pronounced regression of emotional disorders was noted. In patients of the main group, pronounced sedation occurred, emotional disturbances were smoothed out, and there was no increase in fear and anxiety in the evening. Along with a mild sedative effect, in the first days of treatment, rexetine caused a positive trend in relation to depression. Patients perked up, made real plans for work.

A significant improvement was noted in comparison with the control group, not only in scales for assessing depression, but also in assessing cognitive functions. Before treatment with rexetine in the main group, the severity of depressive disorder in the main group was 25.6±5.4 points. By the end of the course of therapy, the mean group scores on the Hamilton scale improved significantly, reaching 7.9±1.3 points. In the placebo group, this change was less significant: 24.4±3.8 and 18.9±1.7 points, respectively. Up to 95.6% of clinically stable patients with COVID-19 have psychological problems and symptoms of stress disorders. Psychological distress in the form of depression, hopelessness and nervousness was found in 52% of patients. A statistically significant significant improvement in performance was observed only after 30 days.

Conclusion. Treatment of patients who have undergone COVID-19 and have neurosis-like disorders should include correction and therapy of the emotional state to improve the quality of life of patients. Coronavirus infection is a risk factor for recurrence of neurosis-like disorders. Appointments of the drug Reksetin are a priority method for the correction of emotional-volitional and neurosis-like disorders. The use of antidepressants and nootropics is the most effective in the treatment of somatic and neurosis-like disorders.

Literature

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