

There were no complications associated with EDA and no deterioration in somatic status. All the patients after observation in the wake-up ward were transferred to the trauma department in  $1.3 \pm 0.1$  hours after the end of the operation.

**Conclusion:**

1. Epidural anesthesia is one of the most optimal types of anesthetic support at operations on the lower extremities.
2. Epidural anesthesia allows controlling hemodynamic parameters and doesn't worsen the course of concomitant somatic diseases.
3. Prolonged action of epidural anesthesia promotes the stabilization of the early postoperative period and early activation of patients, which contributes to an earlier discharge from the hospital and subsequent rehabilitation with an earlier recovery of the function of the injured limb.

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**Mixed Anxiety-Depressive Disorder in Patients with Coronavirus Infection. The Authors' Clinical Observation**

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**Аннотация**

Клиническая картина коронавирусной инфекцией уже давно и подробно описана в различной литературе, причем прогноз восстановления активности у пациентов с

коронавирусной инфекцией с бессимптомным течением наиболее благоприятен, чем при более тяжелых течениях этого заболевания (коронавирусной пневмонии). Однако на сегодняшний день вопрос оценки качества жизни (КЖ), формирования тревожно-депрессивного расстройства (ТДР), терапии психоорганического синдрома у пациентов, перенесших коронавирусную инфекцию с поражением легких, и сильной интоксикацией всего организма, еще полностью не изучена. Сочетание основного вирусного заболевания, тревоги и депрессии не только снижает качество жизни, но и предрасполагает к развитию вторичных осложнений, которые ведут к длительным психическим расстройствам. Проведен анализ клинического случая пациентки, перенесшей вирусную пневмонию коронавирусной этиологии.

**Ключевые слова:** больные, депрессия, вирус, легкие, пневмония, психокоррекция, тревога, шкалы.

### Abstract

The clinical picture of coronavirus infection was described in detail long ago in the scientific literature. The prognosis of the restoration of activity in patients with coronavirus infection with symptomless development was more favorable than in patients with severe forms of this disease (coronavirus pneumonia). However, presently, the issues of the evaluation of the quality of life, the development of mixed anxiety-depressive disorder, therapy for psychoorganic syndrome in patients who had coronavirus infection with severe damage of the lungs and major intoxication of the organism remain understudied. The combination of the primary viral disease, anxiety, and depression not only decreases the quality of life but also leads to the development of secondary complications that result in long-term psychiatric disorders. The authors analyzed a clinical case of a patient that recovered from viral pneumonia caused by coronavirus infection.

**Keywords:** patients, depression, virus, lungs, pneumonia, psychocorrection, anxiety, inventory.

### Background

**Coronavirus infection** is a dangerous group of acute infectious diseases caused by different serotypes of coronavirus that is manifested by the damage of the upper and middle (nose, pharynx, larynx, trachea, and bronchi) respiratory tract. In 20% of patients with some variants of the dangerous virus (MERS-CoV, SARS-CoV, SARS-CoV-2), a severe acute respiratory syndrome with an increased lethality rate develops [1, 2]. Still, there is little published data on the dynamics of the recovery of patients after a severe acute respiratory syndrome COVID-19 who also developed mixed anxiety-depressive disorder (MADD) and the evaluation of their well-being. Presently, at the current stage of the development of psychiatric care for patients with coronavirus infection, specific targeted rehabilitation care is not provided to patients with COVID-19 because of understudied psychosomatic associations between COVID-19 and emotional-volitional disorders. The area of application and the possibilities of psychiatric and psychotherapeutic correction within the acute period of the respiratory syndrome and the early and late recovery period require detailed studies.

**Clinical case:** Patient S., female, 45 years old, had coronavirus pneumonia with lung damage of more than 30%. The patient was treated at the COVID-19 treatment unit. Later, she was directed to local polyclinics to finish the therapy. Secondary diagnosis: MADD. The patient complained of irritability, tearfulness, emotional instability, loss of interest in any activities, sense of not getting enough air, reasonless anxiety, poor sleep quality with nightmares, psychic tension, and sensation of impending doom. Record from the medical history: family history is not burdened by psychopathological and cardiopulmonary pathology. Pregnancy and child delivery in the mother was uncomplicated. The patient was the only child in the family. At the pre-school age, the patient often used to get ill with acute respiratory diseases, had expressed fear of darkness and height. The patient was growing as an

overanxious, hypochondriac, and spoiled child. She performed well at school, finished 11 classes, received higher education, worked as an economist, later became a housewife. The patient is married with two children that live separately. The patient suffers from chronic bronchitis. The patient had a moderate degree of coronavirus infection COVID-19 with pneumonia, respiratory distress, RR > 30/min, saturation 94%. Dizziness and a sense of not getting enough air remain. The patient received the news on the disease nervously. She thought that “this is death” and “I won’t survive”. The patient confesses that she does not adhere to the therapy. Still, she believes that dizziness and a sense of not enough air come from family problems. She blames her relatives for affecting her immune system that did not cope with the virus. Her family members recovered from coronavirus infection without the damage of the respiratory tract. The patient discusses her household family conflicts overemotionally, often cries and irritates. She complains of expressed weakness. She does not work and left all household activities explaining that she is “dizzy and lacks air and energy”.

Mental status: calm, looks neat, free and easy in her manners, the facial expression is sad. The patient reacts adequately to the discussion of positive events and smiles. She reports her complaints in a dramatic manner, actively discusses her conflict situation with her family. The patient has no perceptual disorders and delusions. General intelligence corresponds to her level of education and age. The thoughts are sequential. The mood is low. The patient is anxious and hypochondriac, shows interest in new cases of COVID-19 disease, and a possibility of reinfection. The patient uses medical terminology, emotionally labile. The patient is not quite critical to her state, she believes that coronavirus infection and the changes in her immune system are associated with a conflict situation in her family.

The results of the testing carried out on day 31 after the recovery from the viral disease showed [3]:

- 16 points by the Hamilton Anxiety Rating Scale (HARS);
- 17 points by the Hamilton Depression Rating Scale (HDRS);
- Type of attitude towards the disease – hypochondriac;
- Freiburg Personality Inventory: elevated by scale I (neuroticism);
- decreased by scales IV (irritability), II (spontaneous aggression), VI (even-tempered), V (sociability), VIII (modesty), X (extraversion-introversion), VII (reactive aggression), XII (masculinism-feminism);
- SF – 35, RP – 0, PF – 50, GH – 31, BP – 32, SF – 44, VT – 39, MH – 49, RE – 44.

The patient was prescribed escitalopram (10 mg/day, once daily, for 2 months).

A follow-up visit on day 61 showed a significant improvement in the patient’s general state. The quality of sleep got better, anxiety reduced. The patient regained self-control. The sense of not enough air occurred rarer. Dizziness, inner tension, anxiety, low mood, fatigue, and drowsiness in the daytime persisted.

The results of the testing carried out on day 31 after the recovery from the viral disease showed:

- 11 points by the HARS scale;
- 13 points by the HDRS scale;
- by the scale SF– 37, RP– 50, PF– 73, GH–41, VT– 44, BP– 43, SF– 54, RE– 56, MH– 50.

### **The analysis of the clinical observation**

Since childhood, the patient had certain personal peculiarities that included mannerism, anxiety, hypochondria, and egocentrism. Depression and anxiety developed during a stressful family situation. The patient was fixed on her sensations. Asthenia clearly dominated. After a two-month therapy, the mood improved, anxiety reduced, the general state improved, and asthenia remained.

Recommended: continuation of the indicated therapy with a further follow-up visit.

**Conclusions.**

1. MADD does not resolve in patients without antidepressant therapy.
2. During traditional pharmacotherapy without psychotropic medication, patients with COVID-19 during all periods of the disease showed a statistically significant increase in the expression of clinical symptoms of anxiety and depression.
3. The timely indication of early psychotherapeutic correction led to a reduction of anxiety and depression.
4. Timely examination by a psychiatrist provides earlier diagnostics of MADD and indication of the therapy in patients that recovered from COVID-19, including its severe forms.

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