

## FEATURES OF THE TREATMENT OF PATIENTS WITH MENTAL DISORDERS AND CARDIOVASCULAR PATHOLOGY

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**Abstract.** *As part of everyday practice, the doctor is faced with a less and less specific disease, most often - with comorbid pathology. One such group of concomitant diseases is mental disorders. It is known that their prevalence in somatic patients, including cardiovascular diseases, is high and, according to various sources, is 1,5-5 times greater in the population.*

**Keywords:** *cardiovascular pathology, mental disorders, comorbid pathology.*

**Introduction.** In Cardiology, the prevalence of Mental Disorders at the clinical and subsyndromal levels is more than 80%. Among them, affective, anxious and somatized diseases prevail. In addition, the causes of mental disorders can be organic brain damage, which leads to cognitive disorders and, consequently, dementia [1]. This corresponds to the opinion of specialists listed in the recommendations for the diagnosis and treatment of acute and chronic heart failure, where cognitive disorders, "old age asthenia", as well as acute delirium, play an important role. Senile asthenia syndrome ("fragile" patients) is a key concept in modern Geriatrics. This syndrome is characterized by an age-related decrease in physiological reserve and the functions of many body systems, in addition to physical involitional processes, it is accompanied by the development of cognitive disorders, loss of previous life interests and depression [2-4]. This group includes a wide variety of pathologies in the clinical picture, but three of them — coronary artery disease, including myocardial infarction and cardiac arrhythmias, arterial hypertension and cerebrovascular diseases, including stroke — account for about 80% of deaths [5-7].

Mental disorders in cardiovascular diseases. The prevalence of arterial hypertension among the adult population is 30-45%. arterial hypertension is an independent disease and an independent risk factor for the development of cardiovascular diseases due to high prevalence and unsatisfactory control. arterial hypertension is included in the list of the most important risk factors for the development of coronary artery disease, and the issues of its therapeutic prophylaxis are an urgent problem of modern cardiology [8-11].

The mental state of patients with Arterial hypertension has certain laws: at the beginning of the disease, an irritating component prevails, and then neurasthenic, hypochondriacal, depressive or hysterical components are added to it. Many studies confirm the causal relationship between arterial hypertension and Affective Disorders. Anxiety and depression are independent risk factors involved in the process of forming arterial hypertension, affecting the survival prognosis of patients with cardiovascular disease. The frequency of anxiety and depressive disorders in patients with hypertension is higher than that of other diseases [12-14].

Arterial hypertension is an independent risk factor for cognitive disorders, regardless of age. This is due both to the high prevalence of the disease among middle and elderly people, and to the nature of brain vessel damage, which is characteristic only of this disease. Even in adolescence, high blood pressure indicators (BP) lead to disorders of a number of cognitive functions, in particular mathematical and creative ones [15-17].

In recent decades, the frequency of Psychosomatic cases has been gradually increasing – from 15% to 50% of the total population, focusing on the relevance of this problem. According to the World Health Organization, cardiovascular pathology ranks first in terms of morbidity and mortality. Psychotic disorders also continue to grow, they occupy a leading position in the rate of incidence. Because of the prevalence of these diseases, the number of patients with a combination of cardiovascular disease and psychopathology increases [18-25].

In addition, mental disorders and cardiovascular diseases are conditions that aggravate each other, and the interaction of these disorders increases the severity of each of them. In such patients, the risk of sudden cardiovascular death is much higher than in the general population and is maximum in the presence of cardiovascular diseases [26].

The therapy of these patients should be complex. Both psychiatrists and internists must participate in the treatment. From the point of view of insurance medicine, one can recall the principle that began to be used less often, but did not lose its relevance: "treatment of the patient, not the disease." The term "psychocardiology" almost eliminates artificial barriers between different areas of Medicine [27].

Psychocardiology is the interaction of mental disorders (endogenous disorders, border conditions, etc.) with somatic symptom complexes associated with cardiovascular disease. There are difficulties in choosing therapy, and the problem has not yet been solved, since many psychotropic drugs have cardiotoxicity and cause other vascular diseases, such as hypotension [28].

The purpose of this study was to obtain objective data on the frequency of the appearance of symptomatic hypotension as a complication of the treatment of psychopathology in patients of different groups against the background of treated cardiovascular diseases.

**Materials and methods.** The main research method used in this work is the statistical monitoring method. In 2022, a retrospective study of patients of both sexes aged 20 to 90 and older was conducted in 3,597 cases (2,158 women and 1,439 men). Of these, 1,263 were diagnosed with hypotension (692 women and 571 men), 35% of the total number of patients. The topics are divided into groups on gender, age, antipsychotic doses, correction of complications and cardiovascular pathologies. A separate column identified death with symptomatic hypotension. Research results and discussion. In this work, there is a clear relationship between the age of the patients, the doses of the antipsychotics obtained, as well as the comorbid pathology and severity of symptomatic hypotension.

In this study, the sex of patients did not affect the frequency and severity of hypotension. The correction was carried out with Infusion Therapy, reduction of antipsychotic doses and vasoconstrictor drugs, as a result of which there were no deaths from hypotension and orthostatic reactions in 2022. As the age of those examined increased, the number of cardiovascular diseases increased by 100% by the age of 60 (coronary artery disease, heart failure, cardiac arrhythmias, hypertension, sclerodegenerative damage to the aorta and valves, etc.

The prevalence of depressive disorders in patients with cardiovascular diseases reaches 60%. According to the World Health Organization (WHO), while maintaining existing demographic trends, up to 2020 coronary heart disease and depression occupy a leading position among all diseases due to reduced years of incapacity for work due to disability. Assume that there are three main causes of the disease: depression as a psychopathological reaction to the disease, depression as a direct result of cardiovascular disease, depression as a result of side effects of treating the underlying disease (e.g. taking b-blockers).

There are general genetic mechanisms that determine the course of development of depression and underlying cardiovascular diseases that can lead to chronic heart failure. One of the leading links in the formation of chronic heart failure is the polymorphism of the angiotensin-modifying enzyme gene, which is associated not only with the activity of this enzyme, but also with hypercortisolemia, which in turn is an important link in the neuroendocrine component of the development of depression.

Angiotensin II, which serves as the main effector in the renin-angiotensin-aldosterone mechanism that underlies the development of chronic heart failure, has a direct stimulating effect on the secretion of corticotropin-releasing factor, which in turn becomes the leading initial joint of the hypothalamus-pituitary-adrenal axis depression formation. Excessive synthesis of aldosterone of the adrenal cortex, which plays an important pathophysiological role in Arterial hypertension, coronary artery disease and chronic heart failure, is also a characteristic feature of depressive disorder, since in patients with depression, even without cardiovascular diseases, its level increases significantly, which allows hyperaldosteronism to be called a sign of depression.

Coronary heart disease, chronic heart failure and arterial hypertension are etiological factors for the development of atrial fibrillation, which leads to both an increase in ectopic activity and a violation of cardiac conduction, which leads to the development of structural restructuring of atrial tissues. Patients with atrial fibrillation often report anxiety and hypochondria. In addition, depressive disorders due to the severe course of cardiovascular disease are later recorded in patients with atrial fibrillation, resulting in the development of chronic heart failure.

Acute myocardial infarction (ami) and its complications are a serious problem of modern medicine and occupy a leading position in the death of the population. Mental disorders in patient's acute myocardial infarction is recorded in 30-50% of cases. This is primarily due to the emotional and personal attitude of the patient to the development of this life-threatening condition (fear of sudden death, recurrent acute myocardial infarction, loss of place of work, possible disability). The mental state of the patient is influenced by certain external social factors, for example, the attitude of relatives to severe illness, the work of medical personnel, etc.

It should be noted that anxiety and depressive disorders occupy the main part of all mental changes in the structure of this condition. Clinically, this is manifested by irritability, the appearance or increase of pain attacks, a decrease in exercise tolerance, sleep disorders, palpitations and arrhythmias, which in turn significantly prolongs the time of treatment and subsequent rehabilitation of such patients. According to the INTER-HEART Study, depression is among the top three risk factors for death from cardiovascular events.

Analysis of postmortem mortality data found that the proportion of people who died within the next 12 months in groups of patients without acute myocardial infarction Affective Disorders and who suffer from depression combined acute myocardial infarction with depression, is 5 times higher than in a group of patients without such disorders. Treatment of depression in patients with

recent acute myocardial infarction significantly reduces the risk of death, revascularization, and reduces hospitalization.

It should be noted that among the complications, acute myocardial infarction delirium plays a prognostically important role, which is accompanied by disorders of both qualitative (delirium, amnesia, oneiroid) and quantitative (deafness, sopor, coma) consciousness, as well as associated cognitive and other mental functions. Delirium can lead to the severity of somatic pathology due to the complexity of diagnosis and treatment. This is considered as an important negative factor in the clinical prognosis of the underlying disease, which is justified by a clearly defined relationship between the development of this condition in the early period acute myocardial infarction and death in this group of patients.

Factors that determine the development of delirium with acute myocardial infarction are the spread of myocardial damage, the condition of its contractility, deterioration of rheological properties, changes in the gas content of the blood against the background of a decrease or absence of cerebrovascular Reserve, as well as the patient's awareness of his own disease, sharp restriction of physical activity, psychologically

The available data on the frequency of delirium in patients with acute myocardial infarction, obtained as a result of local studies, is significantly lower than the level set by foreign specialists, which is most likely due to the search for more detailed diagnostics, as well as the inclusion of this complication in the structure of the diagnosis of the underlying disease.

The group of patients with delirium is characterized by old age, the presence of severe neurological Anamnesis, and a high risk of TIMI, which leads to death over the next 30 days. There is a close relationship between the central nervous system and the immune system. It is known that inflammation plays an important role in the pathogenesis of atherosclerosis. The role of inflammatory processes in the development of depression is perhaps the most noticed problem. An increase in anti-inflammatory markers, such as the S-reactive protein, interleukin-6, tumor necrosis factor  $\alpha$ , advances theories that people with depression are more noted than healthy people, regardless of somatic disorders.

**Conclusion.** Thus, the study carried out shows the relevance and importance of detecting comorbid pathology at the beginning of treatment, which makes it possible to prescribe adequate therapy, taking into account possible complications. Irreparable hemodynamic disorders lead to hypoxia, against the background of which it will not be possible to achieve stabilization of psychotic disorders. Timely correction leads to an improvement in the quality of life and the prognosis of the disease as a whole. In particular, the search for optimal methods and means of treating mental disorders in patients with cardiovascular pathology remains an extremely important issue.

Thus, it should be noted that understanding the processes of formation and occurrence of mental disorders in patients with cardiovascular pathology, as well as methods of their correction, can increase the effectiveness of therapy and improve the prognosis of the underlying disease.

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