# ANXIETY-DEPRESSIVE DISORDERS IN PATIENTS WITH CHRONIC HEART FAILURE

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# RELEVANCE

Chronic heart failure (CHF) is an important cardiovascular disease due to its increasing prevalence, significant morbidity, high mortality and rapidly growing health care costs. The number of patients with heart failure is increasing worldwide. Over the past four decades, significant advances have been made in the definition, methods of diagnosis and treatment of heart failure (HF).

Keywords: chronic heart failure, depression, anxiety, psychological state

The high frequency of early repeated hospitalizations in CHF is becoming not only a medical, but also a social problem, as it causes significant economic costs for treatment. Already in 1991, the cost of paying for hospital treatment of patients with CHF exceeded the cost of paying for hospital treatment of patients with acute myocardial infarction and cancer combined. From 1993 to 1998, these costs in the United States alone increased from 10 to 20.2 billion dollars a year, and the total cost of treating patients with CHF is about 1% of all funds allocated for healthcare [1]. In Russia, at least 6 million patients suffer from chronic heart failure, and about 500 thousand of its new episodes are detected every year. With 1 functional class of heart failure, annual mortality is 10-12%, with II - 20%, with III - 40%.

Chronic heart failure is considered as a clinical syndrome, characterized by the inability of the heart to purify adequate blood supply of organs and tissues, in the development of the body receives the participation of not so many systems of roofing, but also all other organs and systems. CHF is characterized by a decrease in cardiac output that is inadequate to the metabolic needs of the body, as well as a violation of almost all types of metabolism. Caused by disturbances in the work of the heart, the syndrome of insufficiency of blood circulation is recognized by the totality of hemodynamic, neurohumoral and renal manifestations. In heart failure, impaired contractile function of the myocardium is combined with reduced exercise tolerance, frequent ventricular arrhythmias, and a high risk of sudden death [3, 4, 5, 8,9].

CHF is from the very beginning (even before the development of congestion) a generalized disease with damage to the heart, kidneys, peripheral vessels, skeletal muscles and other organs [11]. Although heart failure is a multisystem disease, none of its signs and symptoms can be considered organ-specific. Shortness of breath, for example, may be due to a primary lung disease, and peripheral edema - venous insufficiency or diseases of the liver or kidneys. In addition, in a significant number of patients, severe left ventricular dysfunction occurs asymptomatically or asymptomatically (asymptomatic left ventricular dysfunction corresponding to functional class I) [1].

Anxiety disorder, like depression, is formed within a few weeks or months, the symptoms of the disease progress over time, adversely affecting the daily life of patients. Patients prone to anxiety disorders exaggerate their failures in life, but exaggerate their symptoms of the disease. The increased caution or "hyper vigilance" of these patients is explained by the fact that they, unlike other people, see the world as if through a magnifying glass, carefully observing their internal state and external surroundings [1,3,12,17].

**Purpose of the study**consisted in the study of the psychological state of patients with chronic heart failure who had myocardial infarction.

# Materials and methods

We examined 220 patients with CHF of ischemic origin with I, II and III FC CHF (men aged 38-60 years, mean age  $54.51 \pm 6.89$  years) at baseline and after 6 months of treatment. In all patients, the duration of myocardial infarction was a period of 3 months. up to 4 years. The diagnosis was established based on the results of clinical and laboratory-instrumental studies. All patients were divided into FC according to the New York classification of cardiologists, according to the six-minute walk test (TSW). Patients with FC I amounted to 38 (17.3%) patients, with IIFC - 75 (34.1%) and III FC 107 (48.6%) patients (Fig. 3.1). 158 (71.8.5%) patients had a history of hypertension (AH), the duration of which was 6.9±3.1 years. The exception was patients with acute diabetes mellitus, chronic obstructive pulmonary cerebrovascular accident. disease, The clinical characteristics of the patients included in the study are presented in Table 2.1. The structure of basic therapy included the following drugs: ACE inhibitors were received by 89% of patients, ARBs - 11%, BAB - 96%, diuretics - 39%, spironolactone - 55%, eplerenone - 31%, aspirin - 100%, nitrates - 31%, statins 93% of patients.

**Table 1**Clinical characteristics of patients with CHF

indicators	abs	%
AG	158	71.85
Postponed primary MI	115	52.3
Postponed repeated MI	105	47.7
IHD. Angina pectoris II FC	97	44.1
IHD. Angina pectoris III FC	40	18.2
ZhE	47	21.4
FP	32	14.5
Heart rhythm disorders	152	69

All patients included in the study underwent clinical, functional and biochemical examinations, including an electrocardiogram, at baseline and after 6 months of observation. The clinical condition of the patients was assessed according to the TSH, a scale for assessing the clinical condition, modified by V.Yu.Mareev (2000). The results of the quality of life were studied according to the Minnesota questionnaire with the definition of its total index of quality of life.

### **Results and its discussion**

As can be seen from the analysis of the results of psychological tests conducted in patients with CHF when studying the parameters of the Hospital Anxiety and Depression Scale (HADS), the indicator HADS anxiety in patients with CHF FC was  $6.1\pm0.6$  points. (Figure 3.1). In patients with FC II and FC III, the parameters of this indicator turned out to be higher than the parameters of patients with FC I by 32.6% and 43.8%, respectively, and amounted to  $-6.7\pm0.8$  and  $7.3\pm0.9$  points.

In patients with FC I CHF, the HADS indicator of depression was  $4.9 \pm 0.6$  points. In patients with FC II and FC III, depression exceeds the indicators of patients by 40.3% and 54.8% and amounted to  $6.3\pm0.9$  and  $9.1\pm1.1$ , respectively.

We also analyzed the data of the Spielberger-Khanin questionnaire of reactive and personal anxiety - (RT) and (LT): indicators of RT and LT in patients with I FC CHF were  $30.3\pm1.4$  and  $33.5\pm2.8$  points. In patients with FC II and FC III, the RT indicator was  $36.7\pm2.6$  and  $44.5\pm3.7$  points, LT -  $42.7\pm3.9$  and  $49.7\pm4.2$  points, respectively (Table. 2).

Table 2
Indicators of the Spielberg-Khanin test of reactive and personal anxiety in patients with CHF

Psychologic	I FC	II FC	R I-II	III FC	R I-III
al tests	(n=30)	(n=65)		(n=91)	
Spielberg-	30.3±1.4	36.7±2.6	-17.4%	44.5±3.7	-31.9%
Khanina RT			(p<0.05)		(p<0.05)
Spielberga-	33.5±2.8	42.7±2.9	-21.5%	49.7±4.2	-32.6%
Khanina LT			(p<0.05)		(p<0.05)

When studying the indicators of the Hamilton anxiety scale (HARS), we came to the conclusion that in patients with FC I CHF, the anxiety indicator was  $8.9 \pm 1.9$  points. In patients with FC II and FC III, this indicator exceeds the indicators of patients with FC I CHF by 33.3 and 28% and amounted to  $10.8 \pm 1.1$  and  $14.4 \pm 1.2$  points, respectively. Studying the results of depression indicators on the Tsung scale, we found that depressive disorders predominate in patients with III FC, and amount to  $65.1 \pm 4.6$  points, which is 1.4 and 1.7 times more than in patients with FC I and II.

# **Findings**

The relevance of the study of the psychological characteristics of patients with CHF is also determined by the lack of research covering the main psychological characteristics of patients. The study of the specifications of the psychological characteristics of the pacientov calls for the improvement of the methodology of assessment of the psychosocial status of the pacientov, the potential meaning of the HSN clinic and the quality of life of the patient, and also provide a theoretical basis for the psychological mixed in different stages of treatment.

Anxiety disorders were observed in 37.2% (56.6% - I FC CHF) and depressive disorders in 30.1% (65.1% - III FC). The combination of anxiety-depressive disorders was 32.7%. In CHF patients with heart rhythm disturbances, the anxiety index was 92% and was significantly higher in the high-gradation PVC group, and the combination of anxiety-depressive disorders in this group of patients was 37%.

There was a positive trend in indicators of psychological status. The most highly significant changes were observed in patients with II-II FC CHF.

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