

MEDICAL SCIENCES

СОВРЕМЕННЫЙ ВЗГЛЯД НА ПСИХОСОМАТИЧЕСКИЕ ОСОБЕННОСТИ ПАЦИЕНТОВ С ХРОНИЧЕСКОЙ СЕРДЕЧНОЙ НЕДОСТАТОЧНОСТЬЮ

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MODERN VIEW ON THE PSYCHOSOMATIC FEATURES OF PATIENTS WITH CHRONIC HEART FAILURE

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Аннотация

В данной статье рассматриваются психосоциальные проблемы пациентов с ишемической болезнью сердца, поскольку специалист всегда сталкивается с дилеммой: является ли депрессия вторичным проявлением тревожного состояния (в том числе при панических атаках) или наоборот. Возможно, что у пациента смешанные симптомы - проявления депрессии и тревожных расстройств во многом схожи, и действительно, в общей практике чаще наблюдаются пациенты с тревожно-депрессивным расстройством. В то же время гораздо важнее не просто установить диагноз депрессии или тревожного расстройства, а полностью выявить все психопатологические симптомы, которые есть у конкретного пациента.

Abstract

This article discusses the psychosocial issues of patients with coronary heart disease, as a specialist always faces a dilemma: is depression a secondary manifestation of an anxious state (including with panic attacks) or vice versa. It is possible that the patient has mixed symptoms - the manifestations of depression and anxiety disorders are largely similar, and indeed, in general practice, patients with anxiety and depressive disorder are more often observed. At the same time, it is much more important not just to establish a diagnosis of depression or anxiety disorder, but to fully identify all the psychopathological symptoms that a particular patient has.

Ключевые слова: ХСН, депрессия, тревога, антидепрессантная терапия.

Keywords: CHF, depression, anxiety, antidepressant therapy.

With special attention to scientific research aimed at improving the clinical and diagnostic basis of mental changes in patients with CHD in the world, and their treatment, determination of clinical and psychological and multifunctional markers in CHD; scientific research is being conducted to develop a technology for assessing anxiety and depressive processes in patients using psychological methods. Along with this, the optimization of objective technologies for assessing clinical and psychological processes and the development of treatment methods indicated for the pathogenesis in patients with coronary heart disease is gaining importance.

Often, the terms "depression" and "anxiety" are used not only in general medical literature, but also in everyday speech. Indeed, this terminology is so diverse that it is allowed to characterize a different state of internal discomfort. In some cases, depression takes the place of melancholy of a severe mental disorder, which leads to complete disability as often as a cerebral stroke, in others, a temporary decline in mood may be due to the defeat of an adored football team. Describing their condition, such patients may complain of a feeling of anxiety (or anxiety, nervousness) and at the same time of a depressed mood (or melancholy and sadness). It is difficult to determine these incompatible complaints without anticipating the factors of the patient's

life, his social status, personality traits, home and personal history [1,2,3]. The risk of developing depressive and anxiety disorders during life is 15-20%. In 50% of cases in medical practice, depression remains undiagnosed. In general medical practice, masked (somatized) depression is often encountered, which is detected mainly by somatic signs, Women get sick 34 times more often than men; in particular, 10-15% of women develop postpartum depression, 50% have premenstrual syndrome, the prevalence of depression increases with age and the addition of concomitant diseases, the duration of depression is from several weeks to several years" the main importance in optimizing medical care for patients with depression belongs to doctors of general medical practice. Only 10-15% of patients with depression receive appropriate antidepressant therapy [1].

If a mental disorder is suspected, it is mandatory to conduct a detailed conversation with relatives about his manner and disposition. The most important question in this situation is "How does the patient change?". Otherwise, first of all, it is necessary to investigate how the psychological state has changed, whether the patient has turned out to be apathetic, weak, whether his goals in life have changed, how he behaves in society with others. When for doctors of the therapeutic profile, an increase in body temperature or blood pressure is the first sign of the disease, for psychiatrists, the first calls

of the disease are insomnia, a violation of concentration in the form of its decrease. The most important thing for a psychiatrist is patience, perseverance and skills of asking the right questions to the patient [3,4,5].

In addition, it is necessary to remember that the symptoms of neurotic disorders (both depression and anxiety are typical non - psychotic diseases) change over time. So, the symptoms of depression that were observed in the patient last year, this may be replaced by classic signs of an anxiety disorder, and two years later - symptoms of obsessive-compulsive or panic disorder. It is quite possible that statements like "a person with depression" or "a constantly worried person" are often found in the sources – most likely, some people are more susceptible to depression or anxiety disorders than others [14,16]. It is assumed that there is a family predisposition even to mild types of neurosis. So, timid, suspicious and prone to anxious reactions, housewives often explain their situation by the "nervousness" of the mother or the father suffering from alcoholism. It should be remembered that any even the slightest information can be useful when establishing a diagnosis [15].

Finally, in practice, a specialist always faces a dilemma: is depression a secondary manifestation of an anxious state (including with panic attacks) or vice versa. It is possible that the patient has mixed symptoms - the manifestations of depression and anxiety disorders are largely similar, and indeed, in general practice, patients with anxiety and depressive disorder are more often observed. At the same time, it is much more important not just to establish a diagnosis of depression or anxiety disorder, but to fully identify all the psychopathological symptoms that a particular patient has. Practical doctors cannot and do not want to waste time on formulations, and if a patient complains of a depressed mood or increased anxiety, the first question that an experienced clinician will ask him is "how does a depressed or anxious state affect your life?".

Neurotic disorders are often found in the population, and it is with such diseases that therapists often meet. According to some data and estimates, the risk of developing depression, anxiety or mixed disorder throughout life is 15-20%. A study conducted in the UK in 1995 showed that the prevalence of anxiety disorders reaches 30%, mixed anxiety-depressive disorder - 8%, including panic disorder, phobias and obsessive-compulsive disorder. It is assumed that patients with increased anxiety account for about a third of all consultations in the general practice of doctors.

The results of studies of depression are just as disappointing: the prevalence of "pure" depression reaches 2-5% in the population, and women are 3-4 times more likely to get sick than men, but in practice, in 50% of cases, depression remains poorly diagnosed. Men often have the so-called "masked" (somatized) depression, which is manifested mainly by somatic symptoms. Patients of this group often abuse alcohol, but do not want to seek help from psychiatrists, including due to certain prejudices that are widespread even in modern society [1,2,3,4].

In addition, 10-15% of women develop postpartum depression, and 50% have premenstrual syndrome,

characterized by a combination of somatic symptoms with manifestations of anxiety (or irritability) and depression. The prevalence of depression among alcoholism patients is significantly higher in women (20% compared to 5-10% in men). Finally, there is a direct correlation between the severity of social phobia, anxiety or panic symptoms and the use of alcohol (or tranquilizers) as a pleasant and effective means of compliance.

The prevalence of depression increases with age. Thus, according to research, symptoms of depression are observed in 25-30% of people over 65 years old, and women from this age group (up to 85 years old) are twice as likely to get sick as men. Moreover, in elderly people with several somatic diseases (4 or more), the prevalence of depression is significantly higher (30% compared to 5% among people without concomitant diseases). For example, the prevalence of depression in patients who have suffered a brain stroke is 30-50% [10,13].

Examining patients with signs of depression, anxiety or mixed disorder, the specialist should identify which of the psychopathological symptoms are the main ones. The patient comes to the doctor having his own ideas about the nature and causes of his problems, most often associating them with an unfavorable life event or a chain of events. Neurotic and affective disorders occur not for one or two days (like some acute inflammatory diseases), but for several weeks, months and years, and the causes of their occurrence may indeed be hidden in the past [12]. For example, sleep disorders or persistent headaches are often the result of ordinary professional or family problems, which does not detract from the pathogenetic importance of these "life events", since it has been shown that many of them are factors that provoke the occurrence of a depressive state. At the same time, attempts to detect such provoking factors in the patient's past life are based, as a rule, on a very common point of view, according to which any mental disorder is considered as a consequence of stressful and traumatic situations (including those not realized by patients), and not as a brain disease, as unpredictable as CHD or cholelithiasis.

One of the most time-consuming problems in the diagnosis of mental disorders is the need to distinguish between the factor and the consequence of diseases [9].

Obviously, a depressed mood or depression can be caused by the loss of a familiar job, but people with depression are bad workers, which in itself is the reason for their dismissal. Similarly, patients with agoraphobia associate their fear of crowded places (and not just the fear of open spaces) with a certain stressful event, shyness, etc. But this stressful event could be the first panic attack, after which the patient tends to stay at home and thereby reduce the likelihood of another attack. A panic attack is often accompanied by pronounced somatic symptoms (difficulty breathing, profuse sweating), which forces patients to seek help from doctors of different specialties (cardiologists, gastroenterologists, etc.) in vain attempts to diagnose the disease. Of course, most of all they want to get rid of painful symptoms and get effective treatment, but they avoid contacting a specialist doctor [14,15,21].

The aim of the study is to develop recommendations for improving the definition of clinical and psychological predictors in the early diagnosis of psychological changes and treatment methods in patients with coronary heart disease.

Materials and methods

The analysis of cardiovascular risk factors and psychosocial factors was carried out in 120 patients with coronary heart disease (CHD) who were on outpatient dispensary observation in the conditions of the city polyclinic No. 9 of the city of Bukhara. The diagnosis of coronary heart disease, stable angina pectoris (SSN), functional class (FC) II-III was confirmed by the results of a clinical, laboratory and instrumental study in accordance with National clinical Guidelines. The average age of men was 58.4 ± 5.2 years, women— 61.7 ± 3.8 years ($p < 0.001$), the duration of the coronary history was 2.8 ± 3.3 years. All patients underwent instrumental studies, including electrocardiography (ECG), bicycle ergometry (VEM), echocardiography (EchoCG) with color duplex scanning, ECG with registration in 12 generally accepted and additional ones. A 6-minute walk test was used to determine exercise tolerance (TFN) and blood pressure response (BP). The results of TSH corresponded to the clinical manifestations and FC of SSN at the time of the examination.

In addition to the generally accepted clinical studies, a survey was conducted on the hospital Anxiety and Depression Scale HADS (The hospital Anxiety and Depression Scale Zigmond A. S., Snaith R. P.) designed for the primary detection of depression and anxiety in general medical practice. The HADS scale for determining the level of anxiety and depression does not cause difficulties for the patient and does not require a

long time to fill in and interpret the results. A comparative analysis of groups of CHD patients with depression and without depression found statistically significant differences in a number of clinical and functional manifestations of stable angina pectoris, cardiovascular risk factors, psychosocial factors, and gender of patients. Statistical analysis of the data was carried out using the Statistica 6.0 application software package. The significance of the differences in the groups by the average value of the indicator was carried out using the Student—Fisher criterion. In all statistical analysis procedures, the critical significance level (p) was equal to 0.05. The average sample values are represented by $M \pm m$, where M is the arithmetic mean, m is the error of the average.

Results and their discussion

According to the questionnaire, 32 (26.6%) had depressive disorders corresponding to the level of depression from 8 to 10 points, corresponding to mild and moderate manifestations of depression according to the level of the evaluation scale from 7 to 11 points. This was the basis for the division of patients into 2 groups. The main group consisted of 32 patients with SSN and clinical depression (average score of 10 ± 0.82). In the comparison group consisting of 88 patients with SSN without depressive disorders, the average score did not exceed 7.41 ± 0.84 . Depression was found in almost every fourth patient with coronary heart disease. A comparative analysis of groups of patients with depression and without depression found statistically significant differences in a number of clinical and functional manifestations of CVD, cardiovascular risk factors and the most significant psychosocial factors confirming the adverse effect of depression on the course of coronary heart disease.

Table 1.

Clinical characteristics of CHD patients depending on the presence or absence of depressive disorders and the gender of patients ($M \pm t$)

Indicator	Patients with SSN with depression on the HADS scale		Patients with SSN who do not have depression on the HADS scale	
	Men (n = 12)	Women (n = 20)	Men (n = 35)	Women (n = 53)
Average age, years	$57,06 \pm 4,36$	$57,84 \pm 5,47$	$55,13 \pm 4,76$	$59,15 \pm 3,52$
Duration of IHD, years	$5,48 \pm 1,85$	$5,76 \pm 2,07$	$3,84 \pm 1,99$	$3,76 \pm 1,89$
FC of angina pectoris:				
II	3 (25%)	11 (55%)	8 (24,2%)	34 (64%)
III	9 (75%)	9 (45%)	2 (5,7%)	19 (35,8)
Post-infarction cardiosclerosis	4 (33,3%)	5 (25%)	2 (5,7%)	5 (9,4%)
Хирургическая реваскуляризация миокарда	2 (16,6%)	1 (5%)	1 (2,8%)	3 (5,7)
Type 2 diabetes mellitus	3 (25%)	8 (40%)	3 (8,5%)	5 (9,4)
Number of seizures per week	$2,49 \pm 0,82$	$1,46 \pm 0,55$	$1,40 \pm 0,76$	$1,35 \pm 0,85$
Low income	3 (25%)	2 (%)	5 (14,3%)	7 (13,2%)

As can be seen from the table in patients without depression, the duration and severity of the disease depends on the psychoemotional state of the patient, and the number of attacks per week in patients with depression was on average 2.49 ± 0.82 in men, 1.46 ± 0.55 in women.

Analysis of the results of psychological tests conducted in patients with coronary heart disease in the

control group showed that when evaluating the hospital scale of anxiety and depression (HADS), the HADS anxiety index in patients with FC II and FC III was 6.7 ± 0.8 and 7.3 ± 0.9 points.

The indicator of HADS depression in patients with FC II and FC III, this indicator was 6.3 ± 0.9 and 9.1 ± 1.1 points and exceeded the indicators of patients with FC I by 40.3% and 54.8%, respectively.

The presence of symptoms of depression was reflected in the overall clinical picture and was manifested by a worsening of the course of SSN, an increase in angina attacks, instability of blood pressure, a decrease in compliance and self-esteem, dissatisfaction with their physical condition, a tendency to self-reproach, especially in men. Patients with CHD with depression were characterized by a reduced mood background, pessimism, depression, fixation on psycho-traumatic events, anhedonia phenomena, psychosomatic reactions, vegetative symptoms and extracardial manifestations (feelings of lack of air, fear, cephalgia, insomnia, pain of different localization). These symptoms make it difficult not only to detect CHD in patients with depression, but also to treat it. The indication for the appointment of antidepressant therapy (ADT) in this sample was the level of depression corresponding to the severity of its clinical manifestations.

In order to predict the progression of CHF, a calculator program has been developed to determine the prognosis of the course of CHF, taking into account the clinical criteria of the disease, the parameters of the psychological status, including an assessment of the significance, diagnostic value and prognostic significance of individual diagnostic criteria with the construction of a mathematical model of signs. To assess the individual risk stratification of the patient, a diagnostic table was compiled to identify the probability of an error-free prognosis and assess the severity of the patient, which makes it possible to determine the individual prognosis of the progression of CHF. To assess the significance of the parameters in predicting the course of CHF, a method based on the theory of feature recognition with a probabilistic approach was used. The method allows you to determine the diagnostic value of features by calculating diagnostic coefficients.

Taking into account individual clinical criteria and indicators of psychological status, a diagnostic table has been developed to identify unfavorable predictors of the course of the disease and the psychological state in patients with CHF who have suffered a myocardial infarction. To assess the significance of these indicators, the Bayes method was used, based on the theory of probabilistic determination of features. Using this method, the possibility of determining the informative value of each feature and calculating diagnostic coefficients was used. Based on the assessment of the importance, diagnostic and prognostic value of each diagnostic criterion, a mathematical model was developed, which served as the basis for the development of a program to identify unfavorable predictors of disease progression and psychological status.

The assessment of the sensitivity, specificity and prognostic significance of the detection of each trait was carried out on the basis of a generally accepted matrix and the corresponding formulas.

Sensitivity (Se) – the probability of detecting an unfavorable course of CHF when detecting a sign, was determined as $Se = a/(a+c) \times 100 \%$. Specificity (Sp) – the probability of the absence of a trait in healthy individuals, was determined as $Sp = d/(b+d) \times 100 \%$. The prognostic significance of detecting the trait (PV+) for

determining the course of CHF was calculated using the formula: $PV+ = a/(a+b)$.

These indicators were selected by us to assess the prognosis of the course of coronary heart disease, taking into account the standard methods of examining the patient, as well as the parameters of assessing the psychological status that we studied: conducting TSH, assessing the clinical condition according to SHOCK, indicators of psychological status. In order to assess the individual risk stratification of the patient, we present a program that is a set of individual signs and collected in a so-called diagnostic table in order to identify the probability of an error-free prognosis in order to assess the severity and prognosis of the patient

Based on the results of the study and the calculator, an algorithm for determining the prognosis and management of patients with coronary heart disease was created. Targeted treatment of patients with coronary heart disease with identified violations of the psychological status and its combination with rehabilitation methods contribute to improving the course of the disease, the quality of life of patients and the prognosis of life.

Conclusions

In patients with depression, CHD is associated with a higher functional class of stress angina, a higher risk of an unfavorable outcome, a higher frequency of associated clinical conditions, cases of psychosocial stress, loss of professional ability to work, lack of social support, and low material income compared to patients without depression. In 32 patients with CHD with depression, who were prescribed antidepressants of the class of selective serotonin reuptake inhibitors, after 6 months. there was a significant decrease in the level of depression and reduction of depressive symptoms, an increase in socio-psychological adaptation, and an improvement in the quality of life compared to patients who did not receive antidepressant therapy, which indicates the pathogenetic and behavioral mechanisms of the relationship between coronary heart disease and depression.

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