



Peculiarities of Psychological Disorders in Patients with Acute Coronary Syndrome

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Abstract: Cardiovascular disease (CVD) remains a global medical and social problem worldwide. The epidemiology of coronary pathologies encompasses both the young working-age population and the elderly population. There is ample evidence that CVS is inevitably involved in the emotional responses of individuals in normal and pathological states [12, 16].

Keywords: coronary syndrome, cardiovascular system, TIA, psychological disorders.

Introduction. Manifest cardiovascular disease (CVD) makes the circulatory system more vulnerable and sensitive to any stimulus. the cardiac symptoms themselves are a stressor. At the same time, CMC, as a key link in the adaptive reactions of the organism, experiences the most damaging effect of psychoemotional reactions induced by the disease: anxiety, compulsive fear, depression, etc. Even within the framework of an adequate psychological response, these reactions under conditions of impaired EPS and autonomic instability can acquire a distinctly negative impact. The combination of CV3 and anxiety-depressive disorder (ADHD) is a well-established factor in clinical practice, with this comorbidity ranging from 33% to 100% of cases.

According to D. Kelly, clinically, 3 components can be distinguished in the structure of neuropathological psychopathological disorders against the background of CVD (14, 17, 19). Subjective experiences due to psychological symptoms proper (i.e. symptoms of anxiety, depression, hypochondria etc.) and avoidance behaviour due to anxiety and anxiety.); avoidance behaviour as a result of the fear of repeated life-threatening situations (e.g. obsessive fear of death or arrhythmia, or cardialgia); and autonomic symptoms (high blood pressure, heart rate, rapid breathing, sweating, tremors etc), which contribute to somatization of psychological disorders. D.L. Musselman observed that these components can be in different proportions in a particular patient, can be differently combined with somatic symptoms, and can modify themselves, which predetermines the extreme clinical diversity of psychopathological disorders of neurotic level in ACS.

It is known from medical practice that the very fact of acute coronary syndrome (ACS), as a certainly life-threatening event, is a powerful stressor for the individual, inducing various psychopathological responses of the phobic and anxiety-depressive type. This requires the cardiologist to take into account not only the somatic state, but also all the other components involved in the formation of the overall clinical picture of the disease, including psychopathological reactions. In recent years, much attention has been paid to the interaction and mutual influences of CVD and TDR at the level of studying the pathogenesis, clinic, treatment, and prognosis. However,

due to the complexity and extreme multifaceted nature of psychosomatic relationships, many aspects of the problem of comorbidity of CVD and TDR require further study.

Objective: to study features of psychopathological disorders of neurotic level in patients with acute coronary syndrome.

Material and Methods: The study involved 85 patients with the diagnosis of acute coronary syndrome who were admitted to the Emergency wards №1 and 2 of Samarkand branch of RCEMS during 2021-2022. The patients were divided into 2 groups depending on their sex: the 1st group included 49 male patients, the 2nd group included 36 female patients (Fig. 1). In all patients the frequency and structure of psychological disorders of neurotic level were studied by interview method, the level of TDD according to the Spielberger-Hanin and Tsung scales.

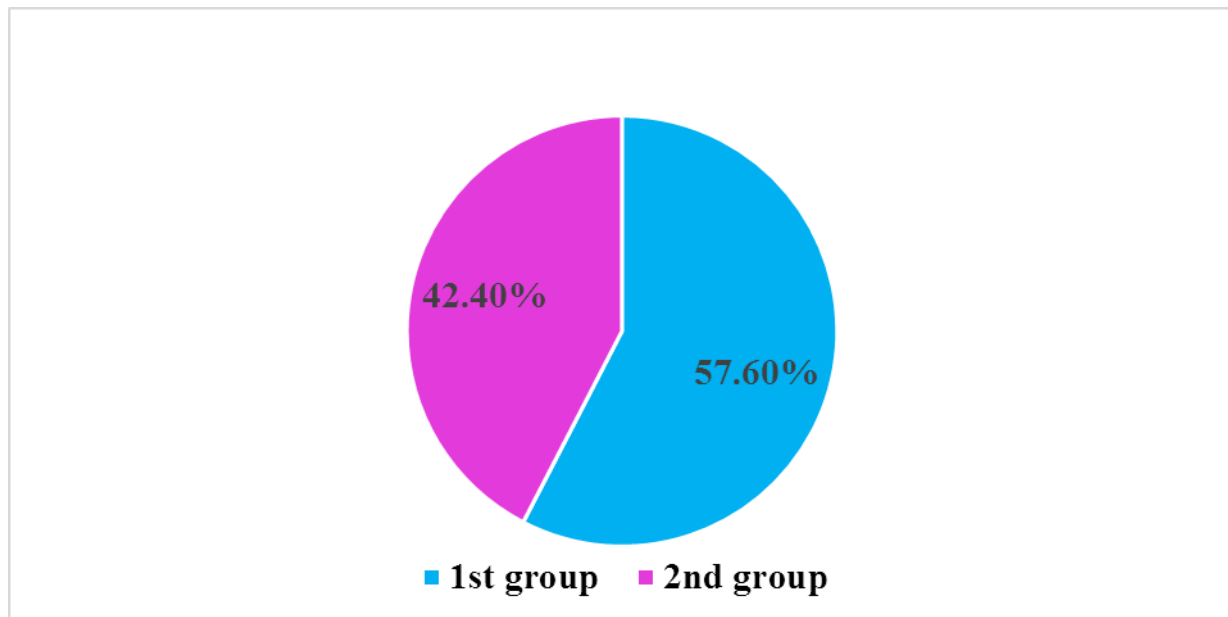


Figure 1. Distribution of ACS patients by gender

Results of the study: all patients in both groups had altered psychological state and in none of them was qualified as adequate, which is in principle typical for acute clinical conditions, which is ACS. Anxiety depression, depression and anxiety, obsessive or obsessive cardiophobia (more often in young and middle-aged patients), less often - hypochondria (in elderly and old) and anosognosia (more often in very young patients) were diagnosed most frequently in the groups as a whole (Fig. 2).

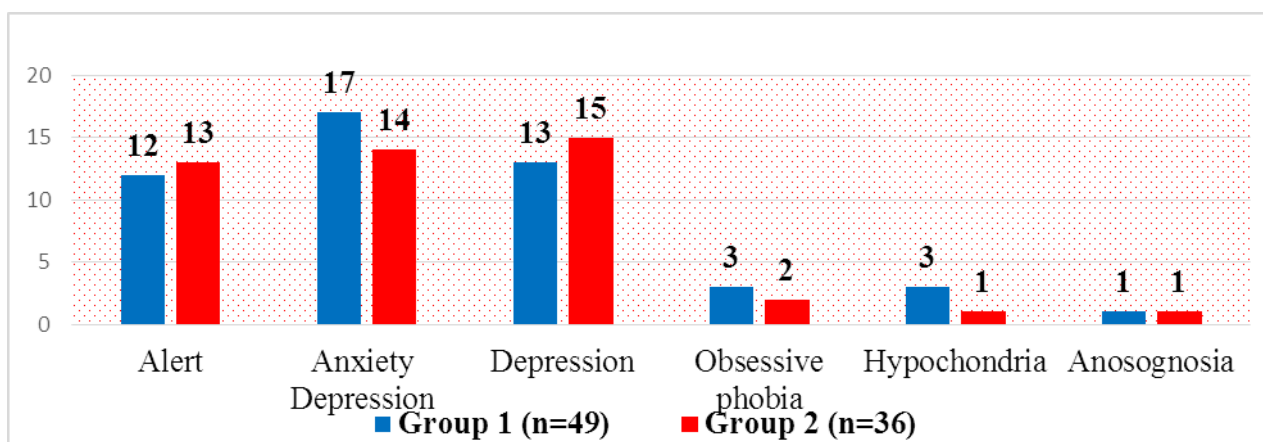


Figure 2. Frequency and structure of psychological disorders in ACS patients according to interview data

Psychological disorders in ACS patients occurred against the background of verified cerebrovascular insufficiency, clinically manifested by different stages of chronic discirculatory encephalopathy (DE) and acute cerebro-vascular events, more often by the type of transient ischemic attack (TIA).

Overall, the incidence of grade I DE in both groups was 27.7%, grade II DE 51.4%, and grade II DE with TIA 23.9% (Fig. 3).

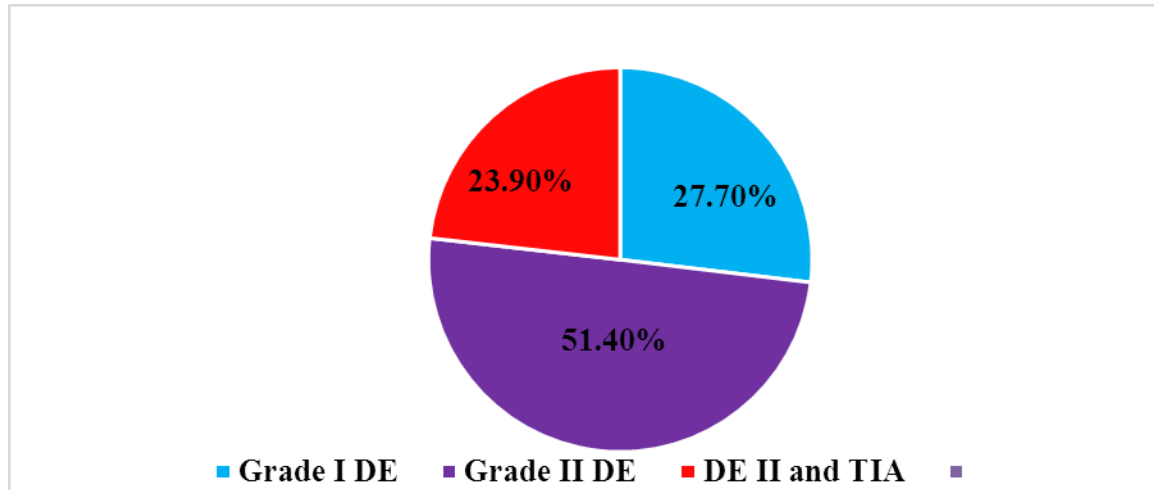


Figure 3. Psychological disorders in ACS patients

Group 2 was significantly more likely to have higher grades of cerebrovascular insufficiency (DE II-56.25% versus 47.4% in group 1, including with TIA, 25% versus 21%, respectively). The initial manifestations of DE prevailed in group 1. This indicates the presence of certain correlations in carotid and major coronary lesions, which has long been pointed out by real clinical practice.

When studying the clinical parameters associated with high level of sympathicotonia, the following parameters were revealed (Table 1)

Table 1. Clinical indicators associated with high levels of sympathicotonia

Indicators	Groups		
	1st group	2nd group	P
Resistant AH	15 (26,3%)	19 (56.2%)	0,065
Tendency to tachycardia	13(15,8%)	17(43,7%)	0,07
Therapy-resistant diabetes mellitus	3(15,8%)	8 (50%)	0,04
Dyslipidemia	49 (100%)	36 (100%)	1
Proclivity to constipation	8(42,1%)	12 (75%)	0,05

Note: Differences are significant at $p \leq 0.05$

The results of clinical studies were verified by psychological testing data according to the Spielberger-Hanin (anxiety) and the Zung Scale (depression). In Group 1 of 49 patients, 17 (36.8%) were diagnosed with severe anxiety-depressive disorders, 14 (21.1%) - with a moderate degree of severity, and 18 (42.1%) - with subclinical disorders. In this group, baseline personality (basal) anxiety (45.26 points on average) and, correspondingly, reactive anxiety (43.58 points on average) were elevated.

In Group 2, of 36 patients, 12 (12.5%) were found to have severe anxiety-depressive disorders, 18 (50%) had moderate anxiety-depressive disorders, and the remaining 17 (37.5%) had subclinical anxiety-depressive disorders. Notably, the level of basal, personality anxiety in the described group was significantly higher than reactive anxiety by more than 6 points and slightly higher than in Group 1 of patients with multivessel coronary artery disease, both personality and reactive anxiety, as well as depression (37.68 vs. 34.63 points in Group 1). The high level of sympathicotonia in group 2 patients was confirmed by clinical and biochemical studies in this direction, which is prognostically more unfavorable. Therefore, group 2 patients are primarily indicated for PCI and it is in them that we should expect a significant improvement of prognosis for patient's life especially in the presence of low adherence to treatment.

Conclusions: thus, male ACS patients had more pronounced psychological disorders of the anxious-depressive and phobic circle, which was also associated with a higher level of sympathetic nervous

system tone. Such psychological state in ACS, obviously, should be considered an additional and very severe predictor of unfavorable prognosis in the nearest future, which agrees with literature data. Therefore, early psychodiagnostics and differentiated psychopharmacotherapy should be stipulated in the diagnostic and treatment standards of such patients both in case of conservative and surgical approaches. The latter approach in the described ACS comorbidity with anxiety-depressive syndrome is preferable to improve immediate prognosis and increase patients' life expectancy, but must necessarily have adequate psychocorrection (psychotherapy, pharmacotherapy) support before, during and after the intervention. Taking into account high clinical prognostic significance of psychological disorders in ACS, diagnostic and treatment standards for ACS patients should provide for early psychodiagnostics and differentiated psychopharmacotherapy.

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