



Journal Website:  
<https://theamericanjournals.com/index.php/tajmspr>

Copyright: Original content from this work may be used under the terms of the creative commons attributes 4.0 licence.

## ABSTRACT

The article presents a study of methods for correcting psycho-emotional disorders during myocardial infarction. namely, the most characteristic subjective and objective symptoms of the psycho-emotional sphere are revealed, data on the effectiveness of the selected psychotherapy in combination with SSRIs are presented.

## KEYWORDS

Psycho-emotional disorders, neurotic depression, myocardial infarction, antidepressants, cognitive-behavioral therapy.

## INTRODUCTION

Interest in the problem of psychoemotional spectrum disorders in various cardiovascular diseases today is determined by their widespread prevalence, social significance, impact on work ability, as well as the results of numerous clinical, neurochemical, neurophysiological studies indicating the commonality of some pathogenetic mechanisms of these conditions [5,10,11]. It should be noted that the prevalence of depressive conditions in patients with various cardiovascular diseases ranges from 18 to 60% [13]. Depression aggravates the course of cardiovascular

diseases, is an unfavorable prognostic factor for target organ damage and an independent risk factor for death in arterial hypertension, coronary artery disease, and acute myocardial infarction [2, 4].

It has now been established that symptoms of depressive disorder are detected in 10–65% of patients hospitalized for AMI, with up to 22% of them having severe depressive disorder (“major” depression)[1]. In the absence of special screening, depression in AMI often remains unrecognized, and clinically significant depression is diagnosed in less than 15%, while

## Research Article

# DIFFERENTIAL APPROACH TO THE TREATMENT OF NEUROTIC DEPRESSION IN MYOCARDIAL INFARCTION

Submission Date: October 20, 2023, Accepted Date: October 25, 2023,

Published Date: October 30, 2023

Crossref doi: <https://doi.org/10.37547/TAJMSPR/Volume05Issue10-10>

Sadikova S.I.

Tashkent Medical Academy, Uzbekistan

individual depressive symptoms are diagnosed in less than 25% of cases, which aggravate the course of AMI and require correction [3,7,14].

It was found that clinically defined depression is statistically significantly associated with mortality from cardiac causes within 18 months after AMI. After excluding the possible influence of other factors (history of myocardial infarction, frequent ventricular extrasystole, presence of acute heart failure according to Killip class  $\geq 2$ ), the relationship between an increased BDI score and cardiac mortality remained significant.

In the work of M. Horsten et al. [6] showed the presence of only 2 of 9 symptoms of depression in women with post-acute coronary syndrome (ACS), which increased the risk of recurrent MI and increased the likelihood of cardiovascular death within 5 years.

Nakatani D., et al. showed that patients with depression after AMI treated with sertraline, an antidepressant from the group of selective serotonin reuptake inhibitors (SSRIs), recover heart rate variability (HRV) parameters over time. At the same time, patients with depression who received placebo showed a decrease in HRV during follow-up [8].

In addition to this L. Silverbruany et al. [9] found that those receiving sertraline for depression after AMI had a statistically significant decrease in platelet activation in the blood of patients by the 16th week of therapy. Also, cognitive behavioral therapy (CBT) led to a decrease in heart rate (HR) and a significant improvement in HRV in patients with coronary artery disease and severe depression [12].

These studies suggest a positive effect of therapy on pathophysiological mechanisms common to depression and coronary artery disease. However, the

question remains open about the effectiveness of psychotherapy alone or in combination with pharmacotherapy as a correction of depressive disorder in acute myocardial infarction.

The purpose of the study was to estimate the differential approach to pharmacotherapy of neurotic depression in patients who suffered acute myocardial infarction

#### Materials and research methods

We studied 80 patients who had suffered acute myocardial infarction with clinically pronounced signs of neurotic depression. The average age of patients was  $62 \pm 7.5$ , they were 46 men and 34 women. The diagnosis of acute myocardial infarction was verified in the cardiac intensive care department. To establish the psycho-emotional state data were collected according to the Hospital anxiety depression scale (HADS) was also screened.

The course of cognitive behavioral therapy (CBT) was selected individually, the number of sessions varied from 5 to 8 sessions. The course of treatment with sertraline was prescribed according to the following regimen: 50-100 mg according to the regimen for 4 months.

Our respondents were divided into two groups: The first comparative group ( $n=40$ ) - sertraline (an SSRI antidepressant) as a treatment for neurotic depression together with CBT; The second comparative group ( $n=40$ ) - therapeutic correction was limited to a course of CBT.

The dynamics of observation of patients was in the following order: on the 5th day after myocardial infarction, on the 10th day of hospital treatment, on the 30th day after discharge from the hospital.

Research results

before therapy for psychoemotional disorders (Tab. No1).

According to a medical and psychological study of patients, subjective data of patients were assessed

Table No. 1

Comparative assessment of subjective data in both groups

No.	Subjective complaints of patients	CG -1 ( n=40 )	CG -2 ( n=40 )
1.	Anxious thoughts (unfounded)	33	27
2.	Depressed mood	37	35
3.	Loss of interest in life	21	24
4.	Painful insomnia	24	27
5.	General weakness	40	40

This table shows that subjective data were relatively equal between the two groups, with the most common subjective symptoms in both groups being decreased mood (92.5%), anxious thoughts (82.5%) and general weakness. Half as many reported a decline in interest in life (52.5%) and painful insomnia (60%).

Analysis of the HADS results in both groups confirmed the presence of neurotic depression (Tab. No2).

Table No. 2

Comparative evaluation of HADS results in both groups

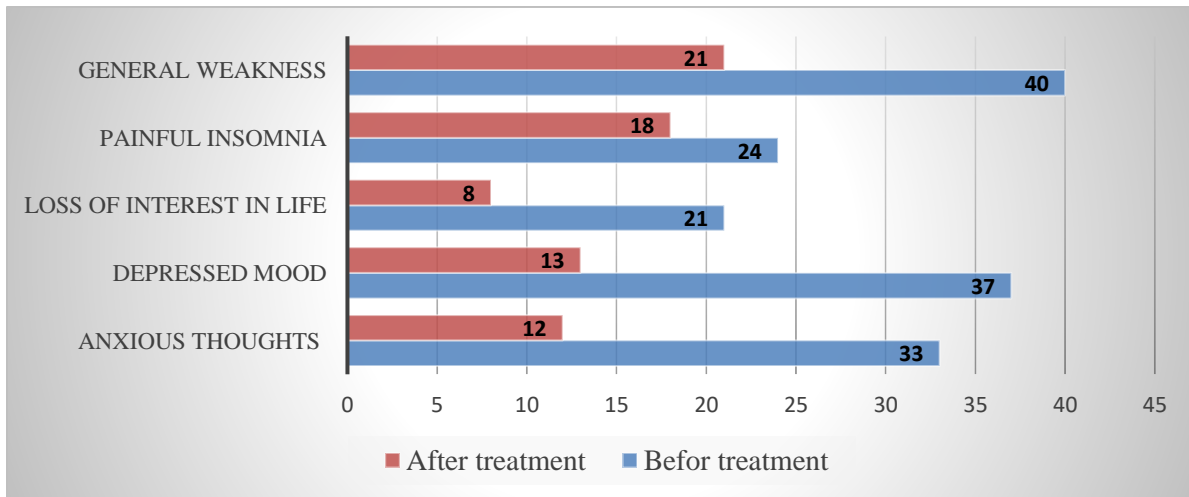
No.	Psycho-emotional disorder	CG-1 ( n=40 )	CG-2 ( n=40 )
1.	Clinically significant depression	8 (20%)	12 (thirty%)
2.	Clinically significant anxiety and depression	32 (80%)	28 (70%)

According to the results of this table, in both groups, clinically pronounced depression was relatively equally certified in 25.5% of patients, and anxiety was noted in combination with depression.

A course of cognitive behavioral therapy together with basic therapy significantly reduced subjective signs of neurotic depression, but CBT in combination with sertraline had a more effective effect on the patients' condition (Diagram No. 3, 4).

Diagram No. 3

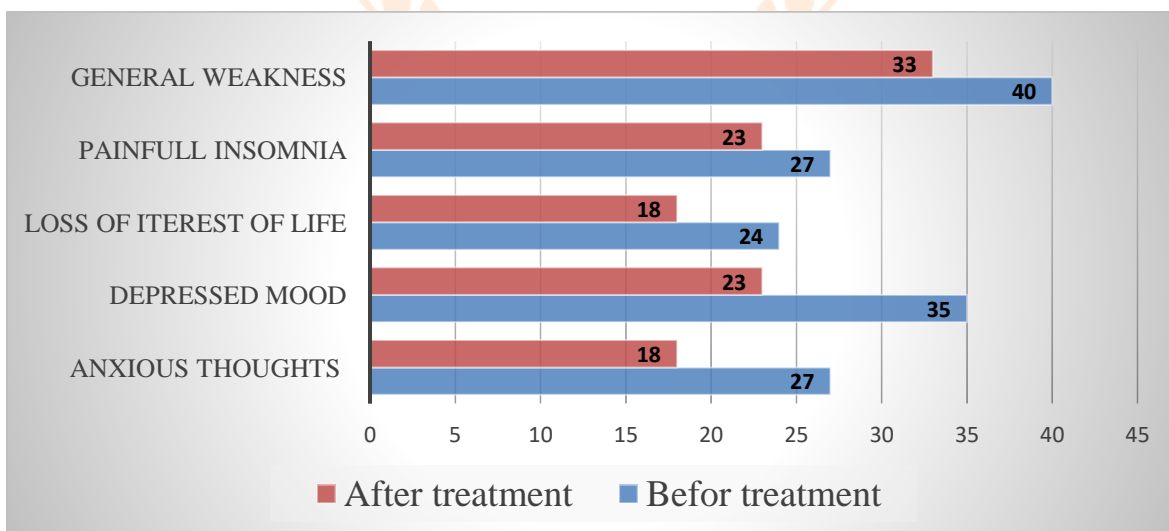
Evaluation of the effectiveness of treatment for neurotic depression in the first comparative group on the 10th day of hospital treatment



Reliability assessment  $p \geq 0.05$

Diagram No. 4

Evaluation of the effectiveness of treatment for neurotic depression in the second comparative group on the 10th day of hospital treatment



Reliability assessment  $p \geq 0.05$

Based on the results of these diagrams, it can be seen that combined therapy of CBT and sertraline is significantly more effective (1.5 - 2 times) ( $p \geq 0.05$ ) already on the 5th day of treatment for psycho-emotional disorder (10th day of inpatient treatment), in comparison with monotherapy with cognitive

behavioral therapy, where the effectiveness of the method is significantly lower (1.3-1.5 times) ( $p \geq 0.05$ ).

HADS test was repeated on the 30th day of therapy, there was also a decrease in signs of clinically significant depression and anxiety with a significant difference (Tab. No5).

Table No. 5

Evaluation of the effectiveness of treatment for neurotic depression in both groups on the 30th day of treatment according to the results of HADS

No.	Psycho-emotional disorder	CG-1 (n=40)		CG-2 (n=40)	
		Before treatment	After Treatments	Before treatment	After Treatments
1.	Clinically significant depression	8 (20%)	-	12 (thirty%)	6* (15%)
2.	Clinically significant anxiety and depression	32 (80%)	8* (20%)	28 (65%)	16* (40%)
3.	Subclinical anxiety without depression	-	15 (37.5%)	-	14 (35%)
4.	No symptoms of depression or anxiety	-	17 (42.5%)	-	4 (10%)

**\*Reliability assessment  $p \geq 0.05$**

According to the results of HADS, repeated on the 30th day of treatment in the main group, there is a tendency for a significant reduction in signs of clinically significant depression and anxiety by 2.5-3 times ( $p \geq 0.05$ ), in contrast to the comparison group, where a decrease in the level of depression and anxiety was noted 1.5 – 1.7 times ( $p \geq 0.05$ ) when using CBT as monotherapy.

**CONCLUSION**

This study showed that combined treatment of neurotic depression, namely cognitive behavioral psychotherapy with the drug sertraline (an SSRI antidepressant), provides a significantly effective

improvement in the patient's condition, with a decrease in subjective data of psycho-emotional disorder, which in turn leads to an increase in the quality of life of patients who have suffered a myocardial infarction.

**REFERENCES**

1. Васюк Ю.А. Лебедев А.В. «Депрессия, тревога и инфаркт миокарда: все только начинается (часть I)» // Журнал Рациональная фармакотерапия в кардиологии. 2007
2. Довженко Т. В., Семиглазова М. В., Краснов В. Н. «Расстройства тревожно-депрессивного спектра и синдром

- кардиальной боли при сердечно-сосудистых заболеваниях (клинико-психопатологические аспекты)» ФГУ «Московский НИИ психиатрии» Минздравсоцразвития России\ Социоальная и клиническая психиатрия. 2011
3. Amin A.A, Jones A.M.H., Nugent K., et al. The prevalence of unrecognized depression in patients with acute coronary syndrome. *Am Heart J* 2006;152:928- 34. 22.
  4. Agelik M.W., Boz C., Ullrich H. et al. Relationship between major depression and heart rate variability. Clinical consequences and implications for antidepressive treatment // *Psychiatry Res.* 2002. Vol. 113. P. 139–149.,
  5. Carney R.M., Freedland K.E., Stein P.K. et al. Change in heart rate and heart rate variability during treatment for depression in patients with coronary heart disease // *Psychosom. Med.* 2004. Vol. 66. P. 799–801.,
  6. Horsten M., Mittleman M.A., Wamala S.P., et al. Depressive symptoms and lack of social integration in relation to prognosis of CHD in middle-aged women. *Eur Heart J* 2000;21:1072-80
  7. Huffman J.C., Smith F.A., Blais M.A., et al. Recognition and treatment of depression and anxiety in patients with acute myocardial infarction. *Am J Cardiol* 2006;98:319-24. 23.
  8. Nakatani D., Sato H., Sakata Y., et al. Influence of serotonin transporter gene polymorphism on depressive symptoms and new cardiac events after acute myocardial infarction. *Am Heart J* 2005; 150: 652-5
  9. Serebruany V.L., Glassman A.H., Malinin A.I., et al. Platelet/endothelial biomarkers in depressed patients treated with the selective serotonin reuptake inhibitor sertraline after acute coronary events. The Sertraline AntiDepressant Heart Attack Randomized Trial (SADHART) platelet substudy. *Circulation* 2003;108:939-44
  10. Shapiro C.M. Depression and vital exhaustion before and after myocardial infarction // *J. Psychosom. Res.* 2005. Vol. 58. P. 391–392.
  11. Sheps D.S., Rozansky A. From feeling blue to clinical depression: exploring the pathogeniety of depressive symptoms and their management in cardiac practice // *Psychosom. Med.* 2005. Vol. 67, Suppl. 1.P. 2–5
  12. Steptoe A., Whitehead D.L. Depression, stress, and coronary heart disease: the need for more complex models. *Heart* 2005;91:419-20
  13. Surtees P.G., Wainwright N.W.J., Luben R.N. et al. Depression and ischemic heart disease mortality: evidence from the EPIC-Norfolk United Kingdom perspective cohort study // *Am. J. Psychiatry.* 2008. Vol. 165, N 4. P. 515–523.
  14. Ziegelstein R.C., Kim S.Y., Kao D., et al. Can doctors and nurses recognize depression in patients hospitalized with an acute myocardial infarction in the absence of formal screening? *Psychosom Med* 2005;67:393-7