THE EFFICIENCY OF RENDERING PSYCHOLOGICAL ASSISTANCE TO PATIENTS WITH OBLITERATING DISEASES OF LOWER LIMB ARTERIES AFTER RECONSTRUCTIVE OPERATIONS

N. Popenko, D. Cherdantsev
Krasnoyarsk State Medical University, Krasnoyarsk, Russia

Abstract

The article presents the data on efficiency of rendering psychological assistance to patients in the conditions of a vascular profile hospital. The operation executed brilliantly from the technical side cannot give the patient relief and convalescence if the mentality has undergone changes. At the present stage an important task is to render psychological assistance to patients who underwent surgical interventions in the conditions of a hospital. Hospital Anxiety and Depression Scale (HADS) (A. S. Zigmond and R. P. Snaith) which is aimed at identification of emotional disorders was used for the diagnostic. HADS was developed to provide doctors with the acceptable and easy in use practical tool for identification and quantitative assessment of depression and anxiety. The program of medico-psychological assistance is designed to activate internal resources and promote patients’ adaptation to the changing living conditions. The results of the conducted research demonstrate the presence of depression as one of clinical implications in the emotional sphere of patients with obliterating diseases of lower limb arteries.

Keywords: psychological assistance, depression, anxiety, obliterating atherosclerosis, patients with obliterating diseases of lower limb arteries, vascular profile hospital, internal resources

Popenko Natalya Valerijevna – Candidate of psychological sciences, senior lecturer, Clinical psychology and psychotherapy department, Krasnoyarsk State Medical University, Krasnoyarsk, Russia;
Address: 1, Partizan Zheleznyak street, Krasnoyarsk, 660022; phone: +7 (391) 221 91 45;
E-mail: popenkonv@yandex.ru
Relevance

Diseases of cardiovascular system take the 1st place among the lethality reasons. The damage of lower limb arteries takes the 2nd place in the structure of cardiovascular diseases. About 10% of patients have atherosclerosis of lower limb vessels (Gavrilenko et al., 2002).

Nowadays the obliterating diseases of vessels come out on the top on the frequency of implications and clinical value (Savelyev, Koshkin, 1997). The obliterating atherosclerosis of the arteries of the lower extremities (OAALE) occurs among 2-3% of population that makes 20% of all patients with cardiovascular diseases. Within 3-5 years gangrene develops at 10-40% of patients that leads to ablation of an extremity (WHO).

Results of numerous research studies demonstrate, that obliterating atherosclerosis of the arteries of the lower extremities tends to manifest among the younger generation. This disease is taped even more often at patients of working-age (Gavrilenko et al., 2002). In Russia the peak of this disease is the boundary of elderly and old age (60 - 70 years) (Savelyev, Koshkin, 1997; Woelk, 2012; Popenko, and Loginova, 2014).

State of the problem

A difficult life situation such as illness influences the mental activity of a patient and triggers changes under the influence of illness severity (Antipina, 2006). The operation executed brilliantly from the technical side cannot give the patient relief and convalescence if the mentality has undergone changes (Kumbhani, Steg, Cannon, Eagle, Smith, Goto, Bhatt, 2014; Sun, Zhang, Zou, & Chen, 2015; Parissis, Karavidas, Farmakis, Papoutsidakis, Matzaraki, Arapi, Filippatos, 2015). At the present stage an important task is to render psychological assistance to patients who underwent surgical interventions in the conditions of a hospital. The long-term goal such as awareness of illness in the context of whole life cannot be set, but it is possible to allocate achievement of the adequate purpose, according to this period of time - improvement of an emotional state by means of internal psychological resources of the patient.

Therefore, the objective of this research is to study benefits of the program of post-operative psychological assistance to patients with chronic obliterating diseases of the arteries

**Materials and methods**

The analysis of data received by means of psychological examination of patients with chronic obliterating diseases of the arteries of the lower extremities during the period from 2011 till 2012 in Krasnoyarsk became the basis for this study. A total of 15 patients were selected for participation in the program. Psychological assistance was rendered individually during the patients’ medical treatment in a hospital. The patients who underwent a reconstructive operation (aorta-femoral shunting) were treated for 18 days. During this time they had 7 meetings with a psychologist. After the completion of the program the next stage of diagnostic procedures was underwent by the patients.

Hospital Anxiety and Depression Scale (HADS) (A. S. Zigmond and R. P. Snaith) which is aimed at identification of emotional disorders was used for the diagnostic. HADS was developed to provide doctors with the acceptable and easy in use practical tool for identification and quantitative assessment of depression and anxiety (Zigmond et al., 1983). The use of this questionnaire does not serve for the statement of the psychiatric diagnosis, but it serves for identification of depression and anxiety symptoms for the purpose of their further psychological correction (Bjelland, 2002).

Considering the person as a united system, such methods as the autogenic training method (Schulz, 1985), techniques of short-term positive psychotherapy (Yalov, 1997), one of methods of the standardized complex non-drug therapy program (Girich, 2004) were used in the course of the implemented program.

This stage of investigation was directed to determination of changes in indices of depression and anxiety.

Statistical processing of the received data was executed by means of the SPSS program, version 19.0. For evaluation of significant changes in quality of life the statistical analysis was performed before and after psychological rehabilitation.
The assessment of the variable distinctions significance in the connected sample groups for the quantitative signs was made with the use of the Student T-test. The Wilcoxon signed-rank test was used in case of the distributions differing from normal ones. In comparison of ordinal signs in the connected groups, for binary variables, and criterion of marginal homogeneity with amount of categories more than two Mac-Nemara’s criterion was used. Distinctions were evaluated as statistically significant in case of \( p<0.05 \).

**Results and their discussion**

Level of anxiety and depression. By results of the research the most noticeable changes happened (Figure 1) towards augmentation of number of patients with lack of authentically expressed symptoms \( (p\leq0.05) \). Before holding psychological assistance patients demonstrated the following signs: the lowered mood, negative judgment concerning the events, pessimistic view on the future. Patients noted such disturbances as sadness, sleeplessness, loss of appetite. After psychological assistance according to the program patients showed improvement in the emotional sphere, many of them noticed that their sleep was normalized.

![Depression](image.png)

**Figure 1.** Depression indicators among patients before and after implementing the program of psychological assistance

During the data analysis (Figure 2) “before and after” the program of psychological assistance among patients (after reconstructive operations) minor changes on “Anxiety” scale with subclinical indicators towards augmentation of patients number were observed.
More noticeable changes (p≤0.05) were found towards decrease of “Anxiety” scale with clinical implications and augmentation of patients number with lack of authentically expressed anxiety symptoms.

Before participation in the program of psychological assistance patients demonstrated the following features: negative consequences of illness situations, feeling of uncertainty. Patients often transferred negative thoughts from the experience of the past diseases and bound them to the future. Such clinical implications as heartbeat, sleeplessness, loss of appetite were also registered. After rendering the program of psychological assistance the tendency to decrease anxiety clinical symptoms was observed. Patients adapted to new living conditions and ceased to project “anxious” thoughts on the future.

In given cases decrease of “Anxiety” indicator with implications of clinical symptoms is bound to the fact that patients ceased to consider illness as “crash of life”.

![Anxiety indicators among patients before and after implementation of the program of psychological assistance](image)

**Figure 2.** Anxiety indicators among patients before and after implementation of the program of psychological assistance

**Results and their discussion**

The conducted research was referred on studying the decrease of depression and anxiety level after implementation of the program of psychological assistance in the postoperative period among the patients with an ischaemia of the III-IV degree according to A.V. Pokrovsky. A total of 15 patients (on the 5th day after surgery) were examined; and the repeated psychological diagnostics was carried out after rendering the organized psychological assistance. As atherosclerosis is a multifocal disease, the obliterating
Atherosclerosis of the arteries of the lower extremities is usually diagnosed much later. The main clinical implication is a pain syndrome. It is necessary to consider that this disease has the progressing character, and this research gives the ground to assume that the nature of this depression and anxiety is somatogenic. If after the performed reconstructive operation the painful symptoms either decrease, or are absent, it is logical to consider that the level of anxiety and depression will decrease to norm limits. However, rather high percentage of patients with clinical and subclinical implications of depression and anxiety was revealed.

Therefore, the pain syndrome is not the main cause of high rates of depression and anxiety. The data of this study allow assuming that the serious illness which may lead to disability and death puts a person in special life conditions. After psychological assistance the percentage of patients with clinical and subclinical manifestations of depression and anxiety decreased. This proves the benefits of the offered psychological assistance in case of impairments in the emotional sphere.

**Conclusion**

Thus, patients with the high level of depression and anxiety level on HADS scale in the postoperative period demonstrate positive dynamics after the implementation of the specially organized program of psychological assistance. The conducted research allows speaking about positive influence of psychological assistance to patients after reconstructive operations in departments of vascular surgery. In the prospects of internal psychological resources activation patients are less focused on the idea of possible disability and seek to adapt throughout the course of the disease.

**References**


