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Quality of Life After Stenting in Patients With Diabetes Mellitus Type 2 Diabetes

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Abstract: The analysis of the results of a study of the quality of life in patients with type 2 diabetes mellitus after coronary artery stenting using SF- 36 scales was carried out. A significant improvement in the quality of life in patients of the control group after stenting was obtained only on two scales of IH and MN, in patients of the main group - on six scales (PF, RP, BP, VT, RE, MH).

Keywords: quality of life, type 2 diabetes mellitus, coronary heart disease, stenting.

INTRODUCTION

Quality of life (QOL) is a multifactorial concept that reflects the level of well–being and satisfaction with those aspects of life that are affected by diseases and their treatment. The physical, psychological, social and spiritual well-being of a person are components of the quality of life. By WHO definition, QOL is individuals' perception of their position in life in the context of the culture and value system of the environment in which they live, inextricably linked to their goals, expectations, standards and interests. Recently, both in the world and In domestic practice, increasing attention is being paid to health–related QOL (health – realized quality of life - HRQOL). QOL is a reliable, informative and cost–effective method of assessing health at both the individual and group levels. In medical practice, the concept of QOL is used for various purposes: to evaluate the effectiveness of various methods of modern clinical medicine, rehabilitation technologies, assessment of the severity of the patient's condition and determination of the prognosis of the disease. Currently, the study of the quality of life is carried out in almost all areas of medicine, which has allowed us to fundamentally change the traditional view of the problem to give a qualitatively new assessment of the effectiveness of treatment, taking into account the individual characteristics and ideas of the patient. The relevance of studying the quality of life in cardiology is indisputable, since cardiovascular diseases are still the leading cause of disability and mortality in the population. The methods and questionnaires used to assess the quality of life of patients with cardiovascular diseases are divided into general and specific for individual nosologies. Currently, the "gold standard" of general assessment methods for patients with the MOS SF36 questionnaire is considered a pathology of the circulatory system. SF-36 is a general questionnaire that studies various aspects of the patient's quality of life. It consists of 8 scales, according to which the assessment of the patient's emotional, physical, mental, health, vitality and social adaptation is carried out, compiled in such a way that a higher score indicates a better quality of life. In recent years, the QOL of patients with ischemic heart disease who underwent various types of surgical interventions (percutaneous transluminal coronary plastic surgery – CTCA, coronary artery bypass grafting – CABG) has been intensively studied.

After 2 years, 33% of patients resumed professional activity and adapted to a healthier lifestyle. QOL significantly increased in both groups 6 months after the intervention and gradually decreased in the following 36 months. At the same time, there was little difference in QOL in the CTA and CABG groups at the remote stage of observation. According to Swedish researchers, CTCA and CABG significantly improve the quality of life in patients, especially angioplasty. It is natural that QOL after The reading in the early postoperative period is higher than after CABG. However, after a sufficiently long period of time (6-36 months), QOL does not differ statistically significantly, despite the high frequency of recurrence of angina pectoris, decreased exercise tolerance, a greater need for antianginal

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drugs and a more frequent need for repeated surgical interventions after PTCA. A large number of studies have been devoted to the study of QOL during long-term long-term follow-up after CABG surgery. It was found that before the operation, the QOL index in patients was significantly lower than in the population, and after 5 years these indicators were equal. In other words, there was an improvement in all indicators of QOL after CABG, which in 5 years surpass preoperative ones.

The development of therapeutic and rehabilitation programs for patients who have undergone cardiac surgery is largely based on data on the dynamics of the quality of life of patients. The analysis demonstrated the need for a comprehensive approach to rehabilitation in order to compensate for all violations identified during the assessment of QOL, and the ineffectiveness of a one-sided approach, that is, using only the physical or psychological component of rehabilitation.

Preference is given to comprehensive programs including physical training, social support, psychological rehabilitation, and special trainings for patients. Moreover, certain elements of the program, for example, psychological conversations with the patient and his relatives, which allow you to properly prepare the patient for life after discharge from the hospital They can be started after an active medical or surgical intervention. Currently, there are and continue to be developed various options for cardiological rehabilitation programs (short-term, long-term, at home or in a specialized center, with or without the involvement of family members, for certain categories of patients). However, regardless of the type of rehabilitation program, one of the most important and significant tools for evaluating its effectiveness is the dynamics of the patient's QOL. QOL indicators not only help to assess the general condition the patient at the moment and the dynamics over time or against the background of therapeutic measures, but also have a prognostic value. In this regard, the assessment of QOL can be useful when choosing an individual treatment strategy. The aim of the study was to study changes in the quality of life and the degree of satisfaction with treatment in patients with type 2 diabetes mellitus with coronary heart disease (CHD) after coronary artery stenting.

MATERIALS AND METHODS OF RESEARCH

120 patients with diabetes mellitus who underwent coronary artery stenting were under observation. Among the patients there were 87 men (72.5%) and 33 women (27.5%) aged 37-67 years. The average duration of diabetes mellitus was 9.1+-3.2 years. The patients were divided into groups: the main group (n=80) and the control group (n=40). Patients of both groups received specific therapy orally or insulin subcutaneously. QOL in patients of the control group was assessed by the moment of the beginning of the outpatient stage, and one year after the operation. QOL in patients of the main group was assessed at the time of admission to rehabilitation after stenting and at the end of rehabilitation. Patients of the control group underwent traditional basic therapy (thrombo acc, clopidogrel, egilok; thrombo acc, clopidogrel, diltiazem in the presence of vegetative imbalance). In the main group, in addition, patients with dyslipidemia were recommended a diet with a low content of cholesterol, saturated fats and fatty acids and with an increased content of polyunsaturated fatty acids, vegetable fats, vegetable fiber, statins. Also, patients of the main group received additional treatment against the background of traditional basic therapy, depending on the type of disorder: taking an angiotensin converting enzyme inhibitor prestarium (perindopril), bioresonance therapy, laser therapy with the effect of a helium - neon laser on the cardiac zones of Zakharin – Ged. The obtained results were processed by the method of variation statistics. The paper discusses the results in which $p<0.05$.To assess the impact of differentiated rehabilitation on quality of life in patients with coronary heart disease with type 2 diabetes mellitus after stenting, QOL was studied in patients of the main and control groups using the SF-36 technique on the following scales:

Physical Functioning (PF) – physical functioning reflecting the degree to which a health condition restricts the performance of daily physical activities (self-care, walking, climbing stairs, etc.) at the present time; Role-Physical (RP) – role functioning: the role of physical problems in limiting vital activity; the degree of restriction of daily activities due to health problems is assessed; Body Pain (BP) – the intensity of pain and its effect on the ability to engage in daily activities, including housework and outside the home; General Health (GH) – assessment of the patient's current general state of health

and treatment prospects; Vitality (VT) – vitality (implies feeling full of strength and energy or, on the contrary, exhausted);

Social Functioning (SF) – social functioning, determined by the degree to which a physical or emotional state limits social activity (communication); Role-Emotional (RE) – the influence of an emotional state on role functioning, involves assessing the extent to which an emotional state interferes with the performance of work or other daily activities (including large amounts of time, a decrease in the volume of work, a decrease in its quality, etc.); Mental Health (MH) – assessment of mental health, characterizes mood (presence of depression, anxiety, calmness, peace, etc.).

Five scales (PF, RP, BP, SF, RE) reveal "limitations" or "impracticability". They assume that respondents evaluate their condition in points (from 1 to 100). Accordingly, the fewer restrictions related to each of these scales, the higher the indicator evaluating one or another aspect of the patient's life. The other three scales (GH, VT, MH) are "bipolar" in nature and reflect the "level of well-being" with a wider range of negative and positive states. The absence of restrictions corresponds to 50% of the results according to these scales, and the maximum values (up to 100 points) indicate the predominance of positive statements and a favorable assessment of one's health. Physical and psychological rehabilitation was carried out according to the guidelines for the medical rehabilitation of patients with coronary heart disease who underwent stenting.

THE RESULTS AND THEIR DISCUSSION

A significant improvement in the quality of life in patients with coronary heart disease after stenting was obtained only on two scales: physical pain (BP) and mental health (MH). The remaining indicators reflected positive dynamics, but without statistical significance. Significant changes in the quality of life were obtained on six scales (PF, RP, BP, VT, RE, MH), patients noted positive changes in their physical and mental state. A significant advantage of the use of differentiated therapeutic and rehabilitation measures in patients with type 2 diabetes mellitus who underwent stenting. Significantly increased indicators characterizing the physical component of health – physical functioning, role-based physical functioning and physical pain, as well as indicators of vitality, role-based emotional functioning and mental health.

CONCLUSIONS

Thus, when managing the rehabilitation of patients with coronary heart disease after stenting, there is an improvement in the quality of life according to a significantly larger number of questionnaire scales than in the control group, which indicates a more pronounced improvement in the quality of life in general in rehabilitated patients of the main group. It is the improvement in the quality of life of patients after surgery that serves as a justification for expensive surgical intervention

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