

CARDIOREHABILITATION OF PATIENTS UNDERGOING CORONARY BYPASS SURGERY

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Abstract: The relevance of this work is to improve the quality, average life expectancy, as well as to reduce long-term postoperative complications for patients who have undergone coronary bypass surgery (CABG) by undergoing a cardiorehabilitation program.

This study included 84 patients who were divided into two groups. The 1st group included 44 patients who underwent cardio training on treadmill in the early postoperative period. The 2nd group included 40 patients who underwent standard physical rehabilitation. At the end of rehabilitation, patients of both groups filled out the SF-36 questionnaire. According to its results, it turned out that the indicators of the physical and psychological components of the 1st group are higher than those of the 2nd.

Keywords:cardiorehabilitation, coronary bypass surgery, treadmill test.

The purpose of this work is to evaluate the effectiveness of cardiorehabilitation, namely low-intensity cardio training on a treadmill for patients who have undergone coronary bypass surgery.

Research objectives:

- To give a concept and define the stages of cardiorehabilitation.
- Creation of a control group of patients who underwent standard physical rehabilitation measures.
- Creation of a group of patients who in the early postoperative period, in addition to standard cardiac rehabilitation measures, underwent controlled cardio training on treadmill in the early postoperative period.
- Completion of the SF-36 Health Status questionnaire by patients of both groups

Survey to assess the quality of life of patients.

- To make a conclusion about the effectiveness, safety and accessibility of cardiac rehabilitation, as well as to identify the relationship between life expectancy and cardio exercises on treadmill in the early postoperative period in patients who underwent coronary bypass surgery.

Cardiorehabilitation is a coordinated multi-faceted intervention aimed at optimizing the physical, psychological and social functioning of patients with CVD, in addition to stabilizing, slowing the progression and even reverse development of the atherosclerotic process, and consequently reducing morbidity and mortality. Currently, there are three stages of rehabilitation after coronary bypass surgery:

1 etap – stationary

Stage 2 – early inpatient rehabilitation

Stage 3 – outpatient [2]

Material and methods: This study was conducted on the basis of the ASMI clinic in the period from 2022 to 2023 and included 84 patients with coronary artery disease

who underwent coronary bypass surgery. All of them were divided into two groups. The first group consisted of 44 patients who underwent cardiorehabilitation in the early postoperative period, including controlled treadmill training. Cardio rehabilitation included training on a treadmill intensity 2 METH daily starting from 3-4 days after surgery and until the day of discharge from hospital. During each workout, strict blood pressure monitoring was carried out. The second group consisted of 40 patients who underwent standard physical cardio rehabilitation, which included a complex of breathing exercises, dosed walking along the corridors of the department, physical exercises for the muscles of the upper shoulder girdle.

The study did not include patients who had left ventricular aneurysm, life-threatening cardiac arrhythmias, functional class 4 heart failure, diseases of the musculoskeletal system.

Cardio trainings were performed on the domestic system "Cardiotechnika-06", starting with sessions of 6 minutes at the initial lesson with an increase in duration by 1 minute each following lesson. The first group consisted of 10 women aged 50 to 73 years and 34 men aged 40 to 71 years.

The second group consisted of 15 women aged 45 to 67 years and 25 men aged 45 to 73 years. Blood pressure and heart rate were monitored in all patients before the start of training, at the peak and 4 minutes after the workout. Also, before the start of classes, all patients had an ECG taken in 12 leads. For 4 days in the postoperative period, the level of aerobic exercise in both groups differed, which was measured in MET. At the end of the cardiorehabilitation program, patients of both groups filled out the SF – 36 Health Status Survey questionnaire [3] to determine the quality of life. This questionnaire consists of 36 questions, which are divided into 8 different scales: physical functioning, role -playing activity, bodily pain, general health, vitality, social

functioning, emotional state and mental health. All these scales, in turn, form two indicators: the physical and mental component of health. This questionnaire gives an idea of the general well-being and the level of satisfaction with those aspects of life that are affected by the state of health.

Research results: Coronary heart disease affects men more often after 50 years. Blood pressure in group 1 patients increases by no more than 20 mmHg, and after stopping training, it slowly decreases. The heart rate increases by no more than 20% of the resting state. In patients of group 2, blood pressure increases by no more than 10 mmHg, and heart rate does not exceed 10% of the resting state. In group 1 patients, starting from the second day, the level of aerobic

exercise in MET increases. In group 2 patients, the level of aerobic exercise does not change throughout the rehabilitation period.

Conclusions: according to the questionnaire, the physical and psychological components of health in group 1 patients are qualitatively higher than in group 2 patients. The biggest difference is observed in the soci scale of the 2nd group. The biggest difference is observed in the scale of social functioning (34.1%). The most insignificant difference in the scale is role functioning due to physical condition (15.8%).

Low-intensity treadmill training at the early postoperative stage after coronary bypass surgery is not leads to an increase in the risk of developing cardiovascular complications, does not cause a significant increase in blood pressure and heart rate from their level at rest.

All this makes this method of cardiac rehabilitation safe, affordable and practical. Among the patients of group 1, the best indicators of quality of life were identified according to the SF-36 questionnaire, this indicates a clinical effect of -36, this indicates a clinical effect of -36, this indicates the clinical effectiveness of this technique, and, consequently, the life expectancy of these patients will be longer.

Literature:

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