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REHABILITATION OF CARDIOSURGICAL PATIENTS AFTER OPERATION

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Abstract: Cardiac surgery, including procedures such as coronary artery bypass grafting and heart valve repair or replacement, plays a critical role in improving the quality of life and survival of patients with cardiovascular disease. However, the recovery process after such operations is complex and requires a comprehensive rehabilitation program tailored to the individual needs of each patient. Effective rehabilitation after cardiac surgery is essential to optimize recovery and improve the overall health and well-being of patients. A multidisciplinary approach involving healthcare professionals is essential to ensure that each patient receives personalized care throughout their rehabilitation journey.

Key words: rehabilitation, medical observation, rehabilitation program, individual approach, after surgery, cardiosurgery, health restoration, complications, cardiovascular system.

Annotatsiya: yurak jarrohligi, shu jumladan, koronar arteriya payvandlash va yurak qopqog'ini ta'mirlash yoki almashtirish kabi muolajalar, yurak-qon tomir kasalliklari bilan og'rigan bemorlarning hayot sifati va omon qolish darajasini yaxshilashda hal qiluvchi rol o'ynaydi. Biroq, bunday operatsiyalardan keyin tiklanish jarayoni murakkab va har bir bemorning individual ehtiyojlariga moslashtirilgan keng qamrovli reabilitatsiya dasturini talab qiladi.Yurak jarrohligidan keyin samarali reabilitatsiya tiklanishni optimallashtirish va bemorlarning umumiy salomatligi va farovonligini oshirish uchun zarurdir. Sog'liqni saqlash sohasi mutaxassislari ishtirokidagi multidisipliner yondashuv har bir bemorga reabilitatsiya safari davomida shaxsiy yordam ko'rsatishini ta'minlash uchun juda muhimdir.

Kalit so'zlar: reabilitatsiya,tibbiy kuzatuv,reabilitatsiya dasturi,individual yondashuv,operatsiyadan keyin,kardioxirurgiya,sog'liqni tiklash,asoratlar,yurak-qon tomir tizimi.

Аннотация: Кардиохирургия, включая такие процедуры, как аортокоронарное шунтирование и восстановление или замена сердечного клапана, играет решающую роль в улучшении качества жизни и выживаемости пациентов с сердечно-сосудистыми заболеваниями. Однако процесс восстановления после таких операций сложен и требует комплексной программы реабилитации, адаптированной к индивидуальным потребностям каждого пациента. Эффективная реабилитация после

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кардиохирургических операций необходима для оптимизации восстановления и улучшения общего состояния здоровья и благополучия пациентов. Междисциплинарный подход с участием медицинских работников необходим для обеспечения того, чтобы каждый пациент получал персонализированную помощь на протяжении всего пути реабилитации.

Ключевые слова: реабилитация, медицинское наблюдение, реабилитационная программа, индивидуальный подход, послеоперационный период, кардиохирургия, восстановление здоровья, осложнения, сердечно-сосудистая система.

A healthy lifestyle is becoming more and more popular. There are more and more sports fields, gyms, and fitness clubs. Classes are often held without appropriate medical supervision. Before starting regular exercise, a stress-ECG test should be performed to assess exercise tolerance. It allows you to determine the maximum permissible level of load without harming the cardiovascular system, as well as to calculate the exercise pulse. Stress tests are used to detect functional myocardial failure due to insufficient blood supply. In the functional diagnostic department, the treadmill test is performed both for diagnostic purposes and to determine exercise tolerance in patients with coronary pathology. Cardiology (cardio... and . develops prevention methods. The formation and development of cardiology as an independent science dates back to the 19th and 20th centuries. It is related to the work of Aristotle, Hippocrates, Dioscorides, Galen and Ibn Sina. In 1628, after the English doctor Harvey described the circle of blood circulation, knowledge about Cardiology issues began to accumulate. In 1761, the Australian doctor Auenbrugger discovered a new method of studying internal organs - percussion. In the 19th century, clinical symptoms typical of angina, rheumatism, and heart disease were identified. In the works of the French doctor J. Buyot (1835) and G. I. Sokolsky (1836), ideas were put forward that there is a connection between rheumatism and heart damage. Due to the invention of the stethoscope by the French scientist R. Laennec in 1816 and the introduction of the auscultation method in practice (1819), the scope of the diagnosis of cardiovascular diseases has greatly expanded.In 1889, the French doctor P. Potep proposed a device for measuring arterial blood pressure - the monometer, and in 1896, the Italian scientist S. Riva-Rocchi began to use the apparatus for this purpose. By the second half of the 19th century, the science of physiology made great progress. The German physiologist K. Ludwig and the Russian scientist F. V. Ovsyannikov discovered the presence of a vascular center in the medulla oblongata, and E. Weber (German), I. F. Sion and I. P. Pavlov determined the effect of the central nervous system on the heart and blood vessels. S. B. Botkin founded clinical cardiology. G. F. Lang's (1935) classification of diseases of the cardiovascular system and the theory of myocardial dystrophy have not lost their importance.Heart disease specifically affects the heart, while cardiovascular disease affects the heart, blood vessels, or both. Nuclear cardiology, cardiac electrophysiology, interventional cardiology and echocardiography are subspecialties of cardiology. Many heart diseases including hypertension, pericarditis, ventricular tachycardia, congenital heart disease, coronary heart disease, congestive heart disease, arrhythmia, hypertension, high blood pressure and triglycerides, etc.A cardiologist will perform a physical examination of the patient and study the medical history. Along with performing some tests, they can assess the patient's blood pressure, heart rate, lung volume, weight, and blood vessels. Procedures such as coronary thrombectomy, valvuloplasty, stenting, angioplasty, and repair of congenital heart defects may be performed by an interventional cardiologist. Cardiac rehabilitation is crucial in

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prevention of these complications and assisting the early function recovery. Cardiac rehabilitation is a complex intervention that includes postoperative management, exercise training, physical activity promotion, health education and psychological support . Special empha sis in the latest guidelines is made on involving a multidisciplinary team to the rehabilitation complex. In addition to cardiac surgeons and ICU anaesthesiologists it should include cardiologists, nursing specialists, physiotherapists, nutritionists and psychologists, trained in the core competencies of a comprehensive cardiac rehabilitation programme. However, despite the evidence for its benefits and strong guideline recommendations, the uptake of cardiac rehabilitation is poor. Therefore, nowadays promotion of cardiac rehabilitation and sharing the successful experience in this field is essential, as the success of heart surgery depends not only on its type or the patient's The experience of successful post-surgical treatment and rehabilitation allowed establishing the basic approaches to perioperative management of patients with cardiovascular surgical pathology. We are supporters of the fast and early activation concept or "Fast Track". During the ICU stay we adhere to the following principles: time of intubation and artificial ventilation is minimized; physical activity usually begins 12-15 hours after the surgery. The patients are verticalized – helped to sit and stand under doctor's supervision. At the same time, we help patients to perform a small walk on place. This improves blood flow to the right heart chambers. Walking also helps to restore motor function of the intestine. Verticalization of the patient helps to restore vascular tone, and is also one of the mechanisms intestinal tract and improves the overall psychoemotional state of the patient. Lymphatic drainage massage, application of elastic jersey on the lower extremities has a good therapeutic effect on the swelling caused by congestive heart failure.If no major complications take place by the middle of the first post-operation day the patient is transferred from the ICU to the surgery ward. It also helps motivate our patients for early returning to their regular daily activities. They are trained to do exercises and are informed about all the restrictions for protection of the breastbone during physical activities and sleep time. Also, we provide some health education consultations in order to inform the patients about their state and the following rehabilitation programme, which may last up to 6 months. The efficacy and safety of complex cardiac rehabilitation in patients provided with different kinds of surgical procedures was evaluated in the study. A short-term impact of different procedures on patients might differ significantly, as valvular surgery, CABG, surgery on thoracic aorta and their various combinations are provided in our clinic. Post-isolated CABG patients might therefore respond differently to the rehabilitation complex compare to those who underwent a complicated combined suron the lower extremities, early transferring to the surgery ward and returning to the regular daily activities, circumstantial health education, complex work of a multidisciplinary team. This set of rehabilitation measures helps prevent complications after cardiac surgery as well as provide faster patient's daily routine. Rehabilitation of patients after surgeries and their recovery process require special attention.

The goal of rehabilitation

The main goal of rehabilitation is to improve the general condition of the patient, restore heart function, increase physical activity and psychological support. In the postoperative period, patients often experience weakness, depression or anxiety. Therefore, the rehabilitation program should be developed individually. The stages of the rehabilitation process. It starts from the first days after the operation. At this stage, patients are given breathing exercises, light physical activity and activities aimed at restoring movement.

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During this period, patients perform special exercises in order to increase their physical activity and improve the performance of the heart. It is also necessary to pay attention to the diet. It is recommended to establish long-term rehabilitation programs for patients and to continue physical activity. At this stage, patients participate in activities aimed at strengthening their health and preventing cardiovascular diseases.The main components of rehabilitation.

• Physical exercises: special programs to strengthen the cardiovascular system and increase physical activity.

• Nutrition: implement a healthy diet, limit the consumption of fat and salt.

• Psychological support: counseling with a psychologist or psychotherapist and support groups.

• Monitoring: continuous monitoring of the patient's condition and providing medical assistance if necessary. Rehabilitation following cardiac surgery is an essential component of the recovery process that significantly influences patient outcomes. A multidisciplinary approach involving cardiologists, nurses, physical therapists, dietitians, and psychologists ensures that each patient receives comprehensive care tailored to their unique needs. By promoting physical recovery, enhancing psychological well-being, and encouraging lifestyle modifications, effective rehabilitation can lead to improved quality of life and reduced risk of future cardiovascular events. As such, healthcare providers must prioritize the implementation of structured rehabilitation programs for all cardiosurgical patients to optimize their recovery journey.

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