

Cardiovascular diseases and the use of new technologies in their treatment

Ulug'bekova Gulruh Jo'rayevna

Department of Anatomy and Clinical Anatomy, Dotsent

Andijan State Medical Institute, Uzbekistan

Annotation: Diseases of the cardiovascular system - diseases of the heart, arteries and veins. They are many and varied. Some of these diseases (rheumatism, myocarditis, etc.) damage the heart, some damage arteries (atherosclerosis) or veins (e.g., thrombophlebitis), others damage the entire cardiovascular system (hypertension).

Key words: Cardiovascular system, blood, disease.

Cardiovascular disease remains the leading cause of disability and death worldwide. According to the World Health Organization, 56 percent of all deaths are due to cardiovascular disease. In Europe, cardiovascular disease kills 4.3 million (48%) people a year.

According to the State Statistics Committee, 62.1% of deaths in the Republic of Uzbekistan in January-June 2019 were caused by diseases of the circulatory system.

Cardiovascular diseases are inextricably linked to lifestyle and risk factors. While many risk factors are controlled by lifestyle changes, some (hypertension, dyslipidemia, and diabetes mellitus) can be corrected by medication.

Professor Lee Sang-chul from the Seoul Samsung Medical Center Clinic in South Korea recently visited Tashkent for patients with cardiovascular diseases and those who want to undergo prophylaxis against this type of disease. He took part in the show.

During the show, the professor provided information on the types of heart disease, dangerous conditions and symptoms in the circulatory system, as well as his advice on the prevention of the listed problems.

Professor Lee also gave advice on heart disease and modern treatments at the Himedi Counseling Center in Tashkent. Here are some of them:

Cardiomyopathy is a disease associated with primary myocardial damage - cardiovascular disease, arterial hypertension, the presence of systemic and functional changes in the heart muscle in the absence of acquired and congenital heart defects.

The original causes of the occurrence and development of cardiomyopathy have not yet been determined. There are a number of factors that contribute to the development of this disease: heredity, adverse environmental effects, viral infections, autoimmune diseases, endocrinological diseases, exposure to allergens, alcoholism, cardiac pathology, and others.

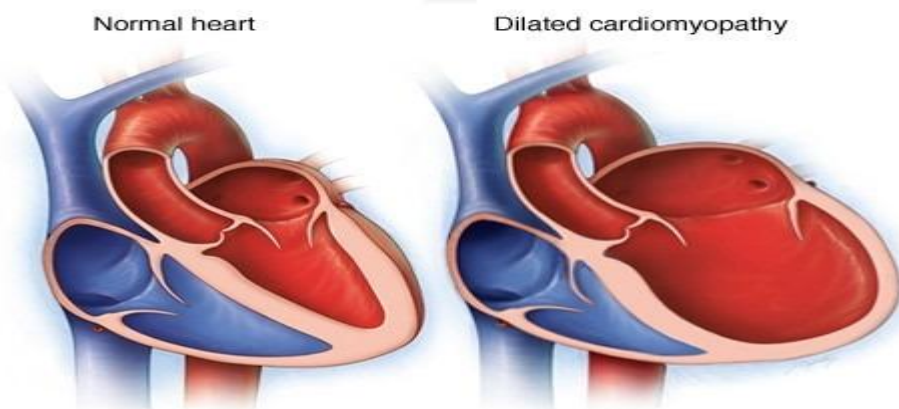
In the early stages, cardiomyopathy is usually asymptomatic. The patient may experience the following symptoms: pain in the heart area, severe fatigue, general weakness, severe heaviness in the right lower ribs, shortness of breath, and other similar symptoms.

Treatment of cardiomyopathy depends on the type:

- Hypertrophic cardiomyopathy is a thickening of the heart muscle and, as a result, impaired circulatory function of the heart. Medications are prescribed by doctors, but septal myectomy surgery

is recommended when there is a risk. As a result of the operation, the thickened heart muscle shrinks and normal blood circulation is restored.

- Dilated cardiomyopathy is a condition in which the main blood chamber of the heart, the left ventricle, dilates, preventing the heart from pumping blood completely.

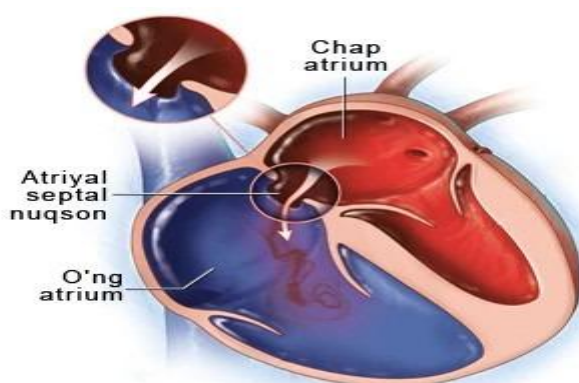


© MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH. ALL RIGHTS RESERVED.

- In restrictive cardiomyopathy, the heart muscle stiffens and their elasticity decreases. As a result, the heart does not expand and the heart does not fill with enough blood during the heartbeat.

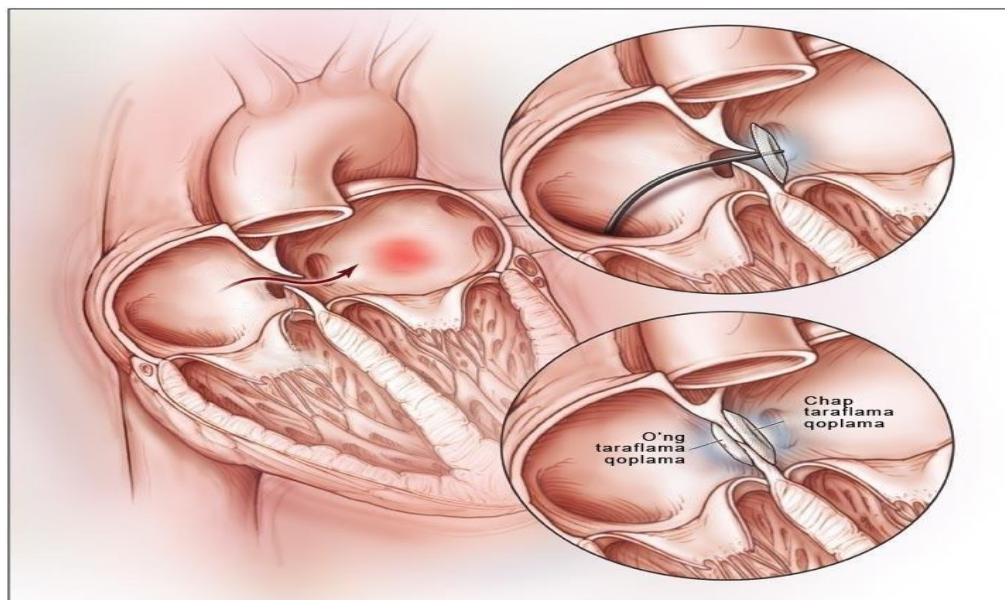
An electronic heart pacemaker that generates impulses for a slow heartbeat, a defibrillator for a very unstable beating heart, an auxiliary ventricular implant for a heart with impaired blood flow function as a solution to improve the patient's condition in a variety of situations, especially when medication can be advised - that was emphasized by the doctor.

A defect in the wall between the heart valves is a permanent defect, defect, or change in the anatomical structure of the heart that interferes with normal blood flow. It is one of the most common congenital heart defects in children over 3 years of age. In this case, there is a hole (s) in the interdispheric septum (wall) that separates the right and left atria of the heart. The presence of this hole causes pathological blood flow from the left atrium to the right and can lead to heart and lung problems in the future.

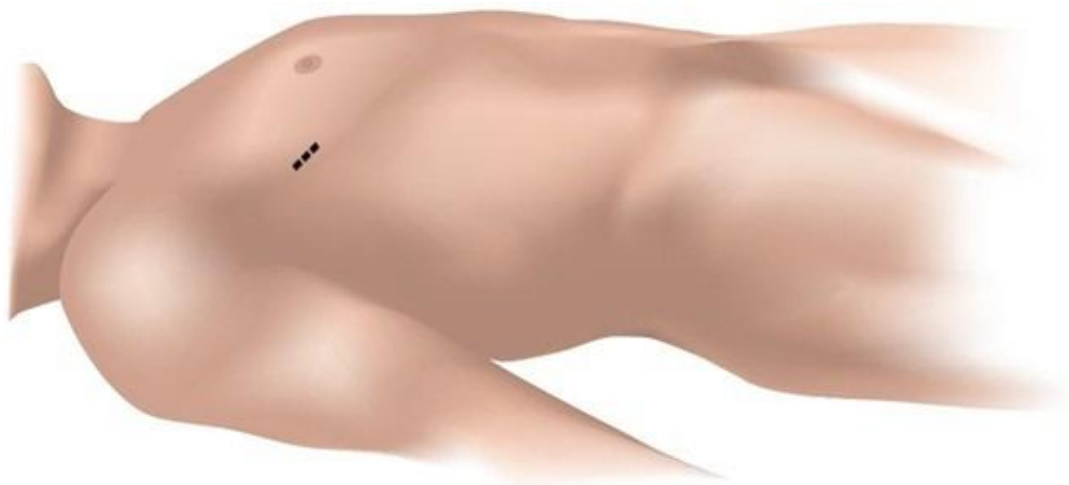


The main method of diagnosing the disease is echocardiography, which provides detailed information about the defect, the condition of the heart, and so on.

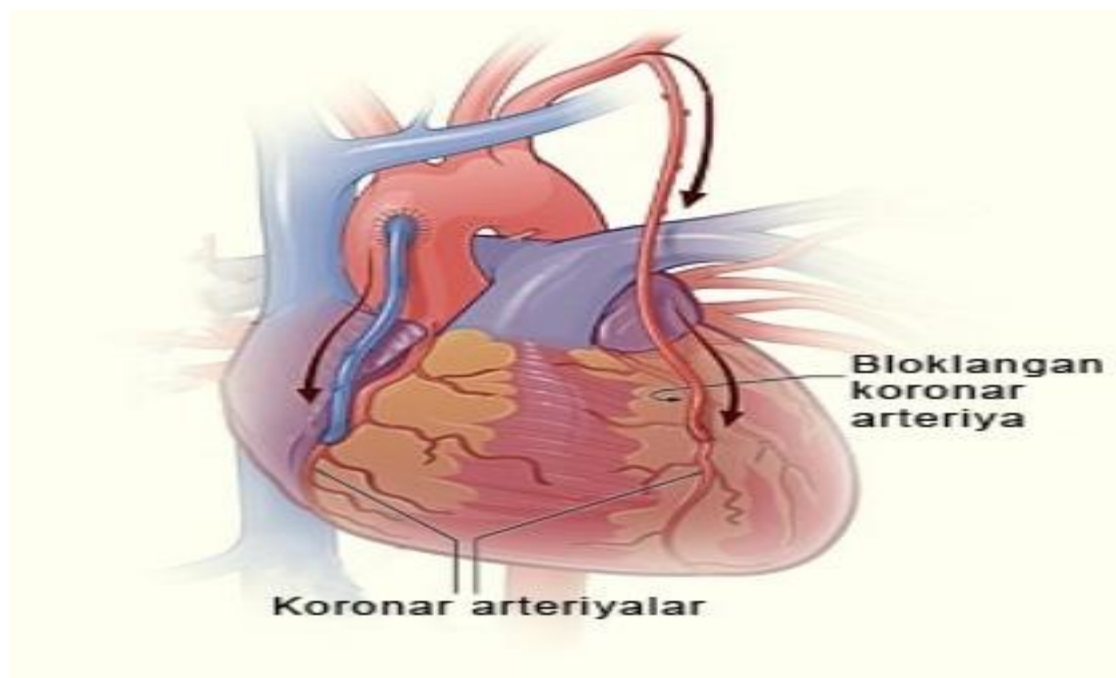
The modern method of treatment of the disease is the endovascular method. A long tube-shaped catheter is inserted into the heart through the femoral vein and the defect is closed using a special coating.



If the defect is large, minimally invasive surgery may be recommended. The operation can be performed with a 4-6 cm incision in the right side of the patient's chest.

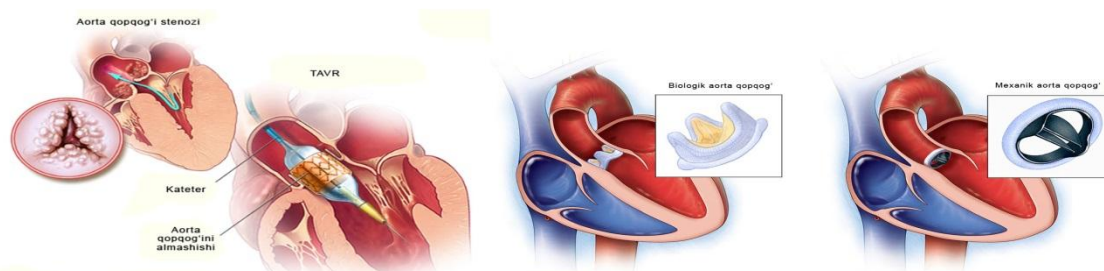


Coronary artery bypass grafting - This technique is used to restore blood flow to blocked or severely narrowed coronary arteries. The essence of the method is that the surgeon creates a "shunt" (spare vessel) bypassing the blocked coronary arteries to restore blood flow.



As a shunt, a blood vessel transplanted from the patient's leg area is used. This type of surgery restores proper blood flow to the patient.

Transcatheter aortic valve replacement (TAVR) is usually recommended in patients diagnosed with severe aortic stenosis. When blood is pumped from the heart to the body, the aortic valve opens, and when it does not open and close properly, the patient is diagnosed with aortic stenosis. As a treatment for this disease, it is recommended to replace the worn and narrowed aortic valve, which causes a violation of normal blood flow in the body. Transcatheter aortic valve replacement is sometimes referred to as transcatheter aortic valve implantation (TAVI)



TAVR is a minimally invasive surgical procedure in which a tubular catheter is inserted into the heart through a large blood vessel in the leg or through a small incision in the chest and the implant is placed in place of an old aortic valve. The old aortic valve is removed after the implant. The new implant will start working immediately.

The decision to treat aortic stenosis with TAVR is made for each person after consultation with a multidisciplinary team of cardiologists and surgeons.

References :

1. Shoxabbos, S., & Mahramovich, K. S. M. K. S. (2023). CAUSES OF THE ORIGIN OF CARDIOVASCULAR DISEASES AND THEIR PROTECTION. *IQRO JURNALI*, 1-6.
2. Salomov, S. N. O. G. L., Aliyev, H. M., & Dalimova, M. M. (2022). RECONSTRUCTIVE RHINOPLASTY METHOD WITH EXTERNAL NOSE DEFORMATION AFTER UNILATERAL PRIMARY CHEILOPLASTY. *Central Asian Research Journal for Interdisciplinary Studies (CARJIS)*, 2(10), 87-90.
3. Salomov, S., Aliyev, H. M., & Rakhmanov, R. R. (2022). MORPHOMETRIC INDICATORS OF THE GROWTH OF THE THICKNESS OF THE LAYERS OF THE VISUAL CORTEX (FIELD 17, 18, and 19) OF THE LEFT AND RIGHT HEMISPHERES OF THE BRAIN IN A HUMAN IN POST-NATAL ONTOGENESIS. *Galaxy International Interdisciplinary Research Journal*, 10(1), 875-878.
4. Дильшоода, Р. М. (2020). ЎЗБЕКИСТОН ТАРАҚҚИЁТИНИНГ ЯНГИ БОСҚИЧИДА ХОТИН-ҚИЗЛАР ИЖТИМОЙ ФАОЛЛИГИ–МАМЛАКАТ ТАРАҚҚИЁТИНИНГ МУҲИМ ОМИЛИ СИФАТИДА. *ВЗГЛЯД В ПРОШЛОЕ*, 3(4).
5. Рузиева, Д. М. (2020). ЯНГИЛАНАЁТГАН ЎЗБЕКИСТОН: ОИЛА МУСТАҲКАМЛИГИНИ ТАЪМИНЛАШДА АЁЛ МАЪНАВИЯТИНИНГ ЎРНИ. *ВЗГЛЯД В ПРОШЛОЕ*, 3(6).
6. Mavlonovna, R. D. (2021, May). PARTICIPATION OF WOMEN IN EDUCATION AND SCIENCE. In *E-Conference Globe* (pp. 158-163).
7. Mirzakarimova, D., Ya M. Yuldashev, and Sh T. Abdukodirov. "Factors biochemical morphological given toxic hepatitis, depending on treatments." *RE-HEALTH JOURNAL* 2, no. 6 (2020).
8. Pakirdinov, A. S., M. M. Madazimov, and D. A. Abdukadirov. "FEATURES OF GASTRIC AND DUODENAL ULCERS IN ELDERLY PATIENTS." *World Bulletin of Public Health* 13 (2022): 63-66.
9. Isanova, D., Azizov, Y., Mirzakarimova, D., Abdukodirov, S., Kayumov, A., & Solieva, M. (2021). Spectrum of pathogens derived from women diagnosed with urinary tract infections. *International Journal of Current Research and Review*, 13(1), 2-6.
10. Mavlonovna, R. D. Factors That Increase the Activity of Women and Girls in Socio-political Processes at a New Stage of Development of Uzbekistan. *JournalNX*, 7(07), 61-66.
11. CHULIEVA, V. E. (2021). THE PRINCIPLES OF COMMONALITY AND SPECIFICITY IN THE PHILOSOPHICAL TEACHINGS OF BAHÁ UD-DIN WALAD AND JALAL AD-DIN RUMI. *THEORETICAL & APPLIED SCIENCE Учредители: Теоретическая и прикладная наука*, (9), 566-573.
12. Salomov, S., Aliyev, X. M., Rakhmanov, P. P., Ashurova, M. D., & Makhmatov, U. S. (2022). HISTOSTRUCTURE OF THE GASTRIC MUCOUS MEMBRANE OF RATS WITH A SINGLE PROTEIN DIET. *EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE*, 2(4), 14-16.
13. Khairullayevich, S. H. Development of gymnastics in Uzbekistan and attention to gymnastics. *International scientific-educational electronic magazine" OBRAZOVANIE I NAUKA*, 21(12), 204-210.
14. Xayrulloevich, S. H. (2023). SPORT GIMNASTIKA MASHG'ULOTLARIDA ASOSIY HARAKAT QOBILYAT (FMS), POSTURAL (MUVOZANAT) NAZORAT VA O'ZINI O'ZI IDROK ETISHGA SPORT GIMNASTIKASINING TA'SIRI.

15. Sayfiyev, H. X. (2023). SPORT GIMNASTIKASI ORQALI YOSH BOLALARNING HARAKAT KO 'NIKMASI RIVOJLANTIRISH PEDAGOGIK MUAMMO SIFATIDA. *Educational Research in Universal Sciences*, 2(11), 300-306.
16. Sayfiyev, H. X. (2023). SPORT GIMNASTIKASINING PEDAGOGIK O 'LCHOV USULLARI. *Educational Research in Universal Sciences*, 2(10), 307-315.
17. Ayubovna, S. M., & Xayrullayevich, S. H. (2023). YOSH BOLLALARDA SPORT SPORT GIMNASTIKASINING PEDAGOGIK O 'LCHOVLAR NAZARIYASI VA TASHKILY-METODIK ASOSLARINI TADQIQ ETISHNING MAQSADI, VAZIFALARI. *PEDAGOGICAL SCIENCES AND TEACHING METHODS*, 2(22), 108-118.
18. Xayrullayevich, S. H., & Ayubovna, S. M. (2023). BADMINTONCHILAR JISMONIY TAYYORGARLIGI VA UNI RIVOJLANTIRISH METODIKALARI. *FORMATION OF PSYCHOLOGY AND PEDAGOGY AS INTERDISCIPLINARY SCIENCES*, 2(18), 201-208.
19. Sayfiyev, H., & Saidova, M. (2023). EFFECTS OF GYMNASTICS ON FUNDAMENTAL MOTOR SKILLS (FMS), POSTURAL (BALANCE) CONTROL, AND SELF-PERCEPTION DURING GYMNASTICS TRAINING. *Modern Science and Research*, 2(9), 204-210.
20. Saidova, M., & Sayfiyev, H. (2023). CONTENT-IMPORTANCE AND PRINCIPLES OF PHYSICAL EDUCATION CLASSES. *Modern Science and Research*, 2(9), 192-199.
21. Ayubovna, S. M., & Komiljonova, K. I. (2022). Features of Application of Sports Games in Preschool Children. *International Journal of Culture and Modernity*, 16, 17-23.
22. Saidova, M. (2023). THE CONCEPT OF PHYSICAL QUALITIES. *Modern Science and Research*, 2(10), 251-254.
23. Ayubovna, S. M., & Xayrullayevich, S. H. (2023). YOSH BOLLALARDA SPORT SPORT GIMNASTIKASINING PEDAGOGIK O 'LCHOVLAR NAZARIYASI VA TASHKILY-METODIK ASOSLARINI TADQIQ ETISHNING MAQSADI, VAZIFALARI. *PEDAGOGICAL SCIENCES AND TEACHING METHODS*, 2(22), 108-118.
24. Saidova, M. A. (2023). SPORT VA FALSAFANING ALOQASI. SALOMATLIKGA TA'SIRI. *Educational Research in Universal Sciences*, 2(10), 288-293.
25. Ayubovna, S. M. (2023). JISMONIY TARBIYA DARSLARINING MAZMUNI-AHAMIYATI VA TAMOYILLARI.
26. Nozimjon o'g'li, S. S. (2021). Tomir Urishining Biofizik Xususiyatlari. *TALIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI*, 1(4), 4-6.