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Use of Modern Technology in Diagnostic and Treatment of Complications After Covid-19 in Cardiovascular System

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Abstract: This article provides insights into diseases of the cardiovascular system and diseases of the heart, arteries and veins. They are many and varied. Some of these diseases damage the heart, some arteries or veins, others damage the entire cardiovascular system. Arterial hypertension is one of the most common diseases of the cardiovascular system, and it is more common among older people. It is the main pathogenetic factor that often causes death or disability, such as myocardial infarction, stroke, heart failure.

Keywords: rheumatism, myocarditis, atherosclerosis, thrombophlebitis, hypertension, covid-19.

Arterial hypertension is one of the most common diseases of the cardiovascular system, and it is more common among older people. It is the main pathogenetic factor that often causes death or disability, such as myocardial infarction, stroke, heart failure. Arterial hypotension is relatively rare. It is observed in the form of arterial hypotension syndrome in many diseases of the cardiovascular system, for example: myocardial infarction, cardiomyopathy, myocarditis, neuroses, hypothyroidism, after a stroke. In clinical practice, heart muscle inflammation - myocarditis and non-inflammatory damage - myocardiodystrophy are observed more often. Endocarditis causes inflammation of the inner layer of the heart-rheumatism and other acquired heart defects. Leerycarditis is rare. Cardiac arrhythmias and heart block may occur as a result of myocarditis and myocardiodystrophy, as well as neurotic conditions. Cardiac arrhythmias are heart contractions, i.e. acceleration of heartbeats - tachycardia or slowing down - bradycardia, extraordinary additional contractions of the heart, extrasystole; sudden acceleration of heart rate - paroxysmal tachycardia; incorrect contraction of the heart at different time intervals is manifested in oscillating arrhythmia and others. Heart block is a violation of the transmission of nerve impulses in the conduction system of the heart, for example: a violation of the passage of impulses from the chambers to the ventricles or to the legs of the bundle of Gis. When the activity of the nervous system of the heart is disturbed due to neuroses, along with arrhythmias, there are also sensations of throbbing, stabbing, throbbing pain in the heart. Atherosclerosis and hypertension are common diseases of arterial vessels, and most of them go together. Atherosclerosis affects not only the coronary vessels, but also the aorta and its large branches,

including the renal artery, cerebral vessels, and peripheral vessels of the arms and legs. Inflammation of arterial vessels - arteritis is more often caused by infections, for example, wounds and allergic-serum disease and collagen diseases. The clinical form obliterating endarteritis, aortic panarteritis, varicose veins and thrombophlebitis are common diseases of venous vessels. Your nervous system is the control center of your body. Originating in your brain, it controls your actions, thoughts, and automatic responses to the world around you . It also controls other body systems and processes, such as digestion, respiration, and sexual development. Diseases, accidents, toxins, and the natural aging process can damage your nervous system. Heart failure is manifested by pathological signs, such as skin bruising, shortness of breath, leg swelling, etc., which indicate that the heart cannot perform the full functional load imposed on it. Shortness of breath while doing something is a pathological symptom. Acute heart failure is very dangerous but rare. He has an unexpected or sudden attack of suffocation. An example of this is cardiac asthma. As a result of many diseases of the cardiovascular system, the contraction function of the heart muscle and the contraction power of the muscle layer of the vascular wall decrease. As a result, blood circulation in the body is disturbed. Depending on which of these factors prevails, heart or vascular failure occurs. Among diseases of the cardiovascular system, regular and timely treatment of hypertension, rheumatism, ischemic heart disease is considered one of the best means of preventing heart diseases, and it is studied by the science of cardiology. Diagnosis, treatment, prevention, etc. of diseases of the cardiovascular system are carried out in cardiorheumatology centers and dispensaries. Treatment consists of rehabilitation, i.e. restoration of health. Currently, thanks to the great achievements in the field of cardiovascular surgery, various congenital and acquired defects in the structure of the heart and large vessels are treated by surgery. The new coronavirus is a new strain of the coronavirus. The disease caused by the new coronavirus, which was first identified in Wuhan, China, has been named the 2019 coronavirus disease. In the short name of COVID -19, "CO" stands for corona, "VI" stands for virus, and "D" stands for disease. First, this disease was called "coronavirus 2019". Covid-19 is a new virus that belongs to the family of viruses that cause severe acute respiratory syndrome and some types of acute respiratory viral infection - ARVI. Without examination of the cardiovascular system by ultrasound and X-ray methods, it is impossible to identify diseases of these organs and provide emergency care in a modern clinic. When examining with light methods, it is possible to determine the morphological structure of the heart and large vessels, their location in the chest, changes in configuration and size, and to get information about the strength, rhythm and speed of the beating of the vessel. In order to obtain fast, correct, accurate information about the heart and large vessels, modern light examination methods: ultrasound, x-ray, radiological tomography are widely used. Development of light cardiology in Uzbekistan and personnel training in this field EI Otakhanov, NI . Scientists such as Ismailov, ON Pavlova, KY Yoldoshev made a great contribution. Methods of X-ray examination of the heart and large vessels are divided into basic, additional, X-ray contrast and X-ray functional types. The main X-ray methods include X-ray, teleroentgenography and fluorography, and additional methods include tomography, X-ray television and X-ray cinematography. X-ray functional methods consist of x-ray kymography and electrokymography methods, but they are limited because they have been replaced by ultrasound examination methods. X-ray contrast methods include angiocardiography, aortagraphy, arteriography, etc. Ultrasound examination of the heart and large vessels is common. Echocardiography takes the leading place among these methods . An examination of the heart and great vessels should begin with an ultrasound examination. Currently, along with radionuclide methods, radiocardiography, scanning and scintigraphy are developed to examine the cardiovascular system . CT and MRI are becoming more common in diagnosis . In the examination of the heart vessels by injection of contrast agents, aqueous solutions of triomblast, verografin or iodamide are used in ampoules. Before using iodine solutions, it is necessary to check the patient's sensitivity to iodine preparations. It can be used only if it is not sensitive . Among all radiological examination methods, the most common method is radiography. This makes it possible to study the heart and large vessels in all cases in a short period of time. Patients are examined in an upright position.

Roentgenoscopy, like other X-ray methods, is a method included in all clinical examinations and is used depending on the clinical need. If a disease is detected in the heart and large vessels, an X-ray should be taken immediately. In the standard case, it is done at a distance of 1.5-2 m. For a differential study of the mitral valve, it is determined that the esophagus is squeezed into a small or large radius arc . In 1838, the Russian doctor GI Sokolsky and the Frenchman Buyot described for the first time the clinical treatment of an acute attack of rheumatism and determined that this disease is related to heart damage . Rheumatism is more common among children and adolescents. Myocarditis - 75-90% of patients with myocarditis experience pain. Pressive, throbbing pains are observed in the area of the heart. It is not related to physical exercise, the pain may increase in the afternoon. Nitrates do not relieve pain . There is no clear correlation between the changes in the ECG of the heart and pain. Atherosclerosis is a chronic disease caused by the breakdown of lipid metabolism, their accumulation in the inner layer of the artery and the growth of connective tissue. -inflammation of the clot and plebo-vena-vein wall and thrombus formation in it. In thrombophlebitis, more leg veins are affected. Thrombophlebitis can occur as a result of some infectious diseases, for example, sweating or damage to veins, sometimes as a complication after childbirth. Thrombophlebitis is caused by decreased blood flow, increased blood coagulation, and changes in the walls of veins. Hypertension, primary essential arterial hypertension, idiopathic arterial hypertension —increased arterial blood pressure in people up to 75% of the population. Causes: various acute or chronic mental and emotional disorders, hereditary or professional factors, non-compliance with the diet. Hypertension is of two types depending on the clinical course: 1) quiet, long-lasting and 2) severe, rapidly developing and in a short period of time, cerebral, a form that causes kidney failure and severe vision loss. Low levels of oxygen in the body can permanently damage the brain and other vital organs in the body. Some hospitalized individuals require artificial ventilation on respirators. It may be necessary to temporarily ``paralyze" the person and use anesthetic drugs to put the person to sleep to prevent chest movements that oppose the use of a ventilator. People with mild to moderate symptoms usually recover within a few days or weeks., can affect the heart, skin, brain and nervous system. The Covid-19 virus attaches to a specific molecule on the surface of cells in the body. This molecule is concentrated in the cells of the lungs, but is also present in some cells that line the blood vessels in the body. The infection causes thinning and weakening of some arteries and veins, including those of the brain . Breaks in small blood vessels can cause bleeding in the brain in some people with covid-19. Studies of people who have died from Covid-19 also show that it is through bleeding . Water and many other molecules in different areas of the brain can be damaged, as well as the vessels that allow blood cells that are normally outside the brain to pass from the bloodstream into the brain. The inflammation that occurs around these blood vessels can damage several small areas. Covid-19 also causes a buildup of blood cells and damage to arteries and veins throughout the body. These lesions reduce or block the flow of blood, oxygen, and nutrients necessary for cell function. This condition can lead to a stroke or a heart attack. A stroke occurs when a blood vessel becomes blocked, narrowed, or a blood vessel ruptures and bleeds into the brain . Self-medication for these Covid-19-related illnesses is dangerous and can lead to serious consequences. Antibiotics do not work. It is treated only by a doctor with the help of special anti-virus drugs. In order to prevent the spread of the disease, the World Health Organization advises people to wash their hands with soapy water and then use alcohol, cover the mouth and nose with a tissue when coughing and sneezing, and patients with cold symptoms we recommend not to be in close contact with, cough, fever, difficulty in breathing, to consult a doctor as soon as possible. It should be noted that the most effective way to prevent not only coronavirus, but also all infectious diseases is to adhere to the rules of personal and public hygiene Implementation consists of organizing sanitary promotion work among the population. A healthy body is a healthy mind. Keeping our health is in our own hands.

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