

MORPHOFUNCTIONAL FEATURES OF THE BLOOD SUPPLY OF THE HEART IN NORMAL AND PATHOLOGICAL CONDITIONS.

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To function properly, any organ as well as heart needs continuous inflow of nutrients, oxygen and excretion of fission products.

Heart muscle, when it is performing great amount of work, is supplied with blood. Approximately 10 per cent of blood that is discarded by the left ventricle flows through the heart vessels. Though the heart weight is only 0.5% of the weight of the body, the heart uses 10% of the artery blood. Blood supply of the heart is performed by coronary and coronal arteries.

Coronal arteries begin from the aorta at the level of semilunar valves. In the thickness of heart muscle, they are changed into capillary system. The capillary system then is transferred into venules and then into veins that flow into the venous sinus of the heart that opens into the right atrium. In the process of the research, it was established that blood supply of the heart has the peculiarity – blood flow is uneven. In the process of diastole of ventricles, when semilunar valves shut down, blood from the aorta flows into the coronary arteries. During this period, pressure in the artery is high; the muscle of the heart is relaxed and therefore necessary conditions for blood inflow.

In addition, it was determined that amount of blood that is supplied to the coronary arteries depends on the value of pressure in the aorta: the higher the pressure the bigger amount of blood flows into the coronary arteries. Considerably less blood flows into the heart muscle during systole period. At strong contraction of the heart as the result of compression of vessels, circulation of blood there can be stopped for a while.

It was revealed that abnormalities in the heart blood supply cause drastic disorders in the work of heart upon teratoid processes. Blood supply in the heart of a person is disturbed in the presence of sclerosis of coronary vessels, thrombosis and reflex spasm. Neural influence as well as hormone agent influence coronary vessels.

Conclusion. Hence, revelation of pathologies should be performed at early stages of the disease for performance of the effective treatment and restoration of the heart cardiovascular system.