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BLOOD SUPPLYING OF HUMAN'S PERICARDIUM

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Background. Studying morphological features of the vascular and nervous system of the pericardium is important in view of the fact that the pericardium is used in a number of operations with the revascularization of the heart.

Result. As a result of our research, we obtained data that there are numerous sources of the pericardium. A constant source of blood supplying of the pericardium is the pericardium-diaphragmatic artery; from this artery the arteries of the first order are entering in the thickness of the pericardium, where they split into the branches of the 5 – 6 order. The second source of blood supplying of the pericardium are the branches of the thymus artery and branches of the internal thoracic artery. Diaphragmatic portion of the pericardium is nourished by a large number of thin arteries originating from the upper phrenic and esophageal arteries. The back wall gets the arteries of the back mediastinal, bronchial, esophageal and periardio-diaphragmatic arteries. For most branches of the first and second order typical main line form of branching, the branches from the second to tenth order have extended or mixed form of branching, making up the whole microcirculatory bed of the pericardium. Intraorgan vessels of the pericardium while making up anastomosis between each other, form the superficial and deep vascular plexuses. In the superficial layer plexus is represented by a very small loops of different forms, from triangular to polygonal complex.

The loops of the plexus are oriented by their biggest sides according to the direction of collagen fibers located in the deep layer of the pericardium. On the right and on the left anterior-lateral surfaces of the pericardium loop plexus of blood vessels with their long dimensions are directed parallel to the longitudinal axis of the heart. Zones of concentration of vascular plexus are most pronounced in the anterior-lateral and inferior walls of the pericardium, which may be due to the more dense diligence of adjoining organs (the lungs, the diaphragm) to the corresponding surfaces of the periardium.

Conclusion. Veins that accompany the arteries, is strictly repeating the course of the arteries. Veins with the arteries form a plexus in the superficial and deep layers of the pericardium. The loops of the veins plexuses are smaller than the loops of the arteries and like inserted in the loops of the plexuses of the corresponding arteries.

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COMBINATIONS BETWEEN ANTIBIOTICS AND METALLIC NANOPARTICLES IN COPING WITH ANTIBIOTIC RESISTANCE

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Background. The world today is experiencing a fast rate of microbial resistance to antibiotic therapy. The field of medicine is posed with increasing challenges of