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Р 85. Руководство по обучению артериальной системы человека для студентов по специальности «Лечебное дело» (GM): учебное-методическое пособие / С.Дж. Джолдубаев, К.Ш. Сакибаев, М.К. Нуруев, Б.К. Кенешбаев. Learning Guide the human arterial system: for students of the specialty "General medicine" (GM) (training manual) / S.Dzh. Dzholdubaev, K.Sh. Sakibaev, M.K. Nuruev, B.K. Keneshbaev – Ош: Изд-во: «Билим», ОшГУ, 2021. – 68с.

Настоящее учебное пособие, предназначено для самостоятельной работы студентов при изучении анатомии артериальной системы человека. Пособие содержит краткий обзор артериальной системы человека, а также схематические рисунки по анатомии и топографии артерий, ветвей и анастомозов.

Латинские термины приведены в соответствии с Международной анатомической номенклатурой, принятой Федеративным комитетом по анатомической терминологии (FACT, 1998)

Пособие предназначено для аудиторной и внеаудиторной работы студентов, ординаторов по специальности «Лечебное дело» (GM) медицинских ВУЗов.

Ученым советом международного медицинского факультета Ошского государственного университета.

This textbook is intended for independent work of students in the study of the anatomy of the human arterial system. The manual contains a brief overview of the human arterial system, as well as schematic drawings on the anatomy and topography of arteries, branches and anastomoses.

Latin terms are given in accordance with the International anatomical nomenclature adopted by the Federal Committee on anatomical terminology (FACT, 1998)

The workbook is made for classroom and extracurricular work for students and residents of speciality "General medicine" of medical universities.

Approved and recommended for publication by the Academic Council of the international medical faculty of Osh state University.

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CIRCLES OF BLOOD CIRCULATION

The circulatory system consists of blood vessels and the Central circulatory organ – the heart. The heart consists of four cavities: the right and left atria, and the right and left ventricles. Each atrium communicates with the corresponding ventricle, but is separated from the opposite atrium and ventricle by a septum. Thus, the right and left heart are distinguished. Vessels that carry blood from the heart are called arteries, and those that carry blood to the heart are called veins.

From the left ventricle, blood enters the largest arterial highway – the aorta, and its branches, which break down in the tissues of organisms to capillaries, are distributed throughout the body. After giving oxygen to the tissues and taking carbon dioxide from them, the blood becomes venous. Capillaries, again connecting with each other, form larger vessels – veins.

All the veins are collected in two large trunks – the superior vena cava, which collects blood from the areas and organs of the head, neck, upper extremities, some parts of the trunk walls, and the inferior vena cava, which collects blood from the lower extremities, walls, pelvic and abdominal cavities. Both vena cava bring blood to the right atrium, where the venous blood of the heart itself is also collected. Further, through the right atrioventricular opening, blood enters the right ventricle. From the latter, blood is directed to the pulmonary trunk, which follows to the right and left lungs. Here the branches of the pulmonary trunk branch out into the smallest vessels-capillaries. In the lungs, venous blood is saturated with oxygen and is directed through 4 pulmonary veins, to the left atrium. From here, the blood passes through the left atrioventricular opening, to the left ventricle.

Thus, a closed circle of blood circulation is obtained – the General circle of blood circulation. In the General circle of blood circulation, there are small and large circles of blood circulation.

The small (or pulmonary) circulatory circle, is called its section, starting from the right ventricle, through the pulmonary trunk, its branches, the capillary network of the lungs, the pulmonary veins, ending with the left atrium.

The great circle of blood circulation is a section of it, starting from the left ventricle, through the aorta, its branches, capillary network, and veins of organs and tissues of the whole body, ending with the right atrium.

THE ARTERIES OF THE PULMONARY CIRCULATION

Pulmonary trunk, 30 mm in diameter starts from the right ventricle of the heart, from which it is separated by its valve. The beginning of the pulmonary trunk and, accordingly, its opening are projected onto the anterior chest wall above the site of attachment of the III left costal cartilage to the sternum. The pulmonary trunk is located anteriorly from the other large vessels of the heart base (aorta and superior vena cava). To the right and behind it is the ascending part of the aorta and to the left is the left ear. It is directed in front of the aorta to the left and posteriorly and at the