### МІНІСТЕРСТВО ОСВІТИ ТА НАУКИ УКРАЇНИ СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ МЕДИЧНИЙ ІНСТИТУТ



# АКТУАЛЬНІ ПИТАННЯ ТЕОРЕТИЧНОЇ ТА КЛІНІЧНОЇ МЕДИЦИНИ

**Topical Issues of Theoretical and Clinical Medicine** 

### ЗБІРНИК ТЕЗ ДОПОВІДЕЙ

V Міжнародної науково-практичної конференції студентів та молодих вчених (м. Суми, 20-21 квітня 2017 року)

Суми Сумський державний університет 2017 **Results**. Intra organ arterial the course of a trunk of a brain of the person, thus, displays a structure of the most brain substance, is characterized by certain century and some specific features. A part of arterial anastomoz between separate arteries, and between arterial networks of some kernels in turn branches therefore intra organ arterial the course of a trunk of a brain of the person in the majority of sites (especially on average and to an intermediate brain) can be characterized as the continuous arterial network which is not divided into expressive zones.

**Conclusions**. This considerable development of arteries of a barreled part of a brain can be explained, apparently, with the maximum development in the person of the most brain trunk (receives besides and food from bigger quantity of sources, on what indicate both literary, and own data) caused by growth and development of a final brain, and influence on a trunk of bark of big hemispheres. Besides, food of a trunk of a brain of the person differs also in rather large number of the vessels suitable for separate kernels.

#### INNERVATION OF LYMPH NODES

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**Introduction.** This work is devoted to an innervation of lymph nodes of a free top extremity of the person. We studied an innervation of humeral, elbow lymph nodes and lymph nodes of a forearm.

**Work purpose**. To investigate an innervation of lymph nodes of a free top extremity of fruits, newborns and children of early age.

**Materials and methods of a research**. Served as material for a research troupe of children (1-2 years), newborns and fruits of the last months of pre-natal development. We investigated the 30th top extremities. On the studied medicines of an artery the injection by green paint in chrome oxide was carried out. After an injection medicines were clarified in 7% solution of nitric acid within 3-4 weeks.

**Results**. Sources of an innervation of lymph nodes of a shoulder. Among humeral lymph nodes distinguish superficial and deep. Let's note that nerves of the top extremity of the person innervated the following number of lymph nodes: a median nerve - 76; a medial skin nerve of a forearm - 39; a musculoskin nerve - 38; a beam nerve - 13; an elbow nerve - 7; a medial skin nerve of a shoulder - 4; lobbies nerves - 3.

**Conclusions**. According to our observations, the frequency of this or that option specific to different groups of lymph nodes.

## STRUCTURAL CHANGES OF RAT'S HEART UNDER THE INFLUENCE OF HYPOOSMOLAR HYPERHYDRATION

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**Actuality:** A cardiovascular diseases are the leading cause of death and disability population in the most countries of the world. Disorders of water-salt homeostasis are very common problems encountered in clinical medicine. Disorders of water and electrolyte balance accompany a significant number of diseases of the endocrine, urinary, cardiovascular systems and have a place in daily clinical practice, causing violations of the structure and function of organs.

**Objective:** To learn the restructuring of the rat's heart on micro- and macrostructural levels under the conditions of the hypoosmolar overhydration.

Studying of features of morphofunctional reconstruction of heart under the condition of hypoosmolar overhydration was conducted on 24 mature white laboratory male rats. There were divided into 2 groups: control and experimental. Animals of experimental series were modeling hypoosmolar overhydration by introduction of 10 ml distilled water three times a day by probe. As

food it was used boiled desalted feed. To prevent a physiological support of water homeostasis and the achievement of the required degree of hydration rats were injected with - "Minirin". Control animals were injected with "Minirin" twice a day. During the experiment these animals received normal drinking water and food within the daily physiological needs.

**Results:** In experimental animals we observed uneven expansion chambers of the heart, namely RV cavity rapidly expands and ASRV is larger than the control on 29.28% (p < 0.0001), while ASLV changes not significant. As a result, PI is decreased on 17.24% in comparison with the control (p < 0.0001). Thus, the characteristic feature of changes of organometric indicators of rat's heart is uneven mass increase and expansion of ventricular's chamber with hypertrophy and RV dilatation.

**Conclusions**: Dynamics of cardiometryc parameters in severe degree of water overload is characterized by a disproportionate increase in mass of the heart chambers and extended their cavities. The most significant changes we observed in the right ventricle: MRV increases on 48.13% (p < 0.0001), ASRV is larger than the control on 29.28% (p < 0.0001). Under the hypoosmolar overhydration we determined thickening of the heart's wall, swelling of muscle fibers with strengthening of their cross striation and their local absence, decreasing number of vessels with violations of blood rheology, increase of collagen in the stroma.

#### FEATURES OF VARIANTS OF THE STRUCTURE OF THE ARTERIAL BED

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**Introduction.** Intraspecific features of topography and a branching of arteries pelvic to a belt and a free back extremity are important for experimenters, especially those which are engaged in transplantation of an extremity. At the same time, the available data of literature insufficiently fully display the listed above questions.

**Work purpose.** To investigate intraspecific features of options of a structure of the arterial course and their value for transplantation of her back extremity.

**Materials and methods of a research.** Considering stated, the anatomic research of the arterial course pelvic to a belt and a free back extremity was made.

**Results.** Arteries go along fibers of ventricular knot, bunch and legs, give arteriola, braid groups of fibers and form the extended loops of a polygonal form. The general principle of a structure of the arterial course of a myocardium is the layer-by-layer arrangement of arterial networks and compliance of an arrangement of vessels directly of bunches of muscle fibers. Dependence of spatial orientation of vessels on the direction of fibers of a myocardium is proved and this situation was confirmed further in many researches.

**Conclusions.** Results of a research of the arterial course pelvic to a belt and a free back extremity can be considered by experimenters at selection of animals to experiments on its transplantation and modeling of different pathophysiological states on this body.

#### OSSIFICATION OF BONES OF THE BRUSH

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**Introduction.** In literature known to us there is a number of the works devoted to studying of process of a mineralization of a skeleton taking into account century changes of an organism. However to unity on this matter in the analysis of results of researches it is not traced.

**Work purpose.** The analysis of data on an occasion of process of a mineralization of a skeleton taking into account century changes of an organism.