

ventricle. The anterior artery: the anterior wall of the left ventricle and ½ anterior of the septum. In the right ventricle the veins open. The left ventricle: at the level of the right and left semilunar valves is the origin of the coronary arteries. The veins are organized in a superficial and a deep system. The heart is innervated by parasympathetic and sympathetic fibers. The lymphatic drainage is assured by 3 plexus in the thraceobronchial and mediastinal lymph. It is important to understand the heart rapport with the spinal column, the ribs and back muscles. For the left ventricle, is projected at the T8-T9 level, the right auricle is projected at the second rib cartilage, the left one at the level of the third rib cartilage.

Conclusion: It is important to know the vascularization and innervation of the heart at clinical level and at surgical level. In cases of disorders of this system we can detect pathologies.

Keywords: Cord, vessels, nerves, column spine, back muscles

9. THE RELATIONSHIP BETWEEN RENAL VASCULATURE AND SURFACE ANATOMY

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Introduction: Kidney anatomy variations and malformation present an important field of study for fundamental as well as clinical sciences. The renal parenchyma along with its vascular supply has a tight embryological and developmental relationship. Renal fetal lobulation is considered as a rare variation of development. But the frequency of this anomaly is higher and can be associated with vascular variations. The presence of vascular variations can cause alteration in kidney circulation resulting in lobulated appearance of the kidney.

Purpose and Objectives: The purpose of the study is to show that fetal lobulation is a more frequent structural variation and is usually associated with vascular developmental changes.

Material and Methods: The study was performed using macroscopic dissection of 48 kidneys along with their vessels. The acquired data were analyzed using Statistical Package for the Social Sciences.

Results: Renal vascular anomalies are quite frequent but they are rarely accompanied by changes in the organ. The frequency of fetal lobulation is 0,5-1% in the current data. Our results indicate that this normally can be encountered much more often. Out of the 48 kidneys 13 had some degree of fetal lobulation on their surface representing 27.09% of cases. From 13 kidneys bilateral fetal lobulation was identified in 8 (61.5%), 5 kidneys had unilateral lobulation (38.5%). 9 kidneys (69.23%) had variations in the development of blood vessels, from which 6 specimens had a superior polar artery, 1 specimen - presegmental branching of the renal artery, 2 specimens had two renal arteries.

Conclusion: Fetal lobulation is a more frequent variation of development than it is usually described in the literature. Our data indicates that quite often (69.23%) fetal lobulation is accompanied by some degree of vascular variation of development which can be polar or additional arteries as well as presegmented branching of the renal artery. This knowledge can be useful in different diagnostic procedures in order to determine the possibility of vascular anomalies as well as other changes in the excretory system.

Keywords: Renal morphology, renal vasculature, renal fetal lobulation

10. STEM CELLS FROM THE AMNIOTIC FLUID , CHARACTERISTICS OF PROLIFERATION AND DIFFERENTIATION.

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Introduction: Regenerative medicine has as a basis the study of stem cells and is one of the newest branches of contemporary medicine. It revolutionizes and lengthens life expectancy but directly and point out the quality. Stem cells are non-differentiated cells or non-specialised and have

the ability to divide indefinitely, so this property has been used as a pillar and in search of new methods of treatment for previously incurable diseases.

Purpose and Objectives: Determination of cellular component of the amniotic fluid, studying the protocol for obtaining stem cells from amniotic fluid, and characterization of cellular component.

Material and methods: The study is made on the basis of 10 sources of amniotic fluid. Amniotic fluid is collected via amniocentesis or amniotic bag punctia. Amniotic fluid is centrifuged under the Protocol MLPA. Then the liquid centrifuged is fixed on the blade glass and studied under a microscope.

Results: Biological function of adult stem cells is to contribute to the healing process. Present cells in the amniotic fluid have origin of the embryo as well as outside of embryo. A mixture of morphological aspects, limited biochemical criteria, and growth characteristics led to the classification of amniotic fluid cells, which attach and form colonies under routine culture conditions, into three major groups: epitheloid E-type cells; amniotic fluid specific AF-type cells; fibroblastic F-type cells. Human amniotic epithelial cells constitute the inner layer of the amnion and are formed from the amnioblast on the eighth day after fertilization. It has long been proposed that Human amniotic epithelial cells could have the potential to differentiate into a wide variety of different organs, including heart, liver and brain.

Conclusion: Amniotic cells have a very strong growth rate, and sometimes their evolution cannot be kept in check. Amniotic fluid is a rich source of mesenchymal stem cells derived, and are similar to both embryonic stem cells and adult stem cells can differentiate into several cell types. Stem cells from amniotic fluid can be stored in banks, similar to umbilical cord blood stem cells, and have high rate of reproduction and can be operated without loss of chromosome integrity.

Keywords: Amniotic fluid cells, human stem cells, amniocentesis

11. USING RABBITS AS EXPERIMENTAL ANIMALS FOR MODELING APPENDECTOMY DURING PRACTICE-ORIENTED TRAININGS AS AN ALTERNATIVE TO ENGAGING IN AN EXPERIMENT DOGS

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Introduction: Among the diseases of the abdominal cavity, requiring immediate surgery, the most frequent acute appendicitis. In connection with the execution of the rules of the obligation of experimental work in experimental animals, we are unable to demonstrate the technique of appendectomy on dogs because considered appropriate to use rabbits as an alternative to engaging in an experiment dogs.

Purpose and Objectives: To compare the topographic-anatomic location and structure of the appendix of rabbit with a human, as well as to simulate and compare the stages of appendectomy.

Materials and Methods: After studying and analyzing the literature data concerning the location and topographic anatomical structure of abdominal viscera clinically healthy rabbit, and the study of this is sue in the anatomical dissection of the rabbit, we have carried out a number of appendectomies in experimental animals as follows: after general anesthesia by intramuscular injection of 10% solution of sodium thiopental (0.5 ml per 1 kg of body weight), was carried out fixing the animal and site preparation section. The abdomen was opened through a midline incision average. Peritoneum is olated gauze. Conducted an audit of the abdominal cavity. Finding the cecum with vermiform appendix removed the min to the wound. Further mobilization process was carried out, direct ligation of the segmental branches outside the walls of the appendix, and the vessels going to the adjacent intestinal loop, and bandaging the appendicular artery. After mobilization, the base of the appendix silk ligature was applied, above which the process of crossing. Stump was treated with 5% solution of iodine. Inspection has been performed and hemostasis layers sutured abdominal wall.

Results: Comparison of topographic and anatomical features of the location and structure of the appendix with a human rabbit showed that these anatomical structures are very close. Accordingly, the technique of surgery carried out was close to an appendectomy in humans.