

Results: We modeled, in vitro, the process of EVLO, during which 24 halves of veins were closed and 12 of them were filled with heparinized blood, while other 12 ones – with saline solution 0.9%. In the lumen of each vein we introduced a 600 mcm optical fiber, and applied an energy of 30 J/cm. In case of veins filled with heparinized blood, the last one boiled, forming a gas, composed of blood combustion products. In addition, veins' diameter did not decrease after chilling. The combustion products deposited on veins' walls, which we histological proved after that. In case of veins filled with sodium chloride 0.9%, the process of boiling happened more difficultly, and it decreased in diameter after cooling. Also, the laser impact on the vascular wall seemed to be much more reduced in veins with sodium chloride 0.9%, rather than in ones with heparinized blood.

Conclusions: (1) The obliterative influence of laser on varicose veins happens, first of all, because the laser energy is absorbed by blood. (2) The blood vaporization takes place forming gas and combustion products. (3) In order to correctly accomplish the surgical intervention, it makes sense to realize an intraoperative procedure, named Troianov-Trendelenburg, which avoids the blood combustion products to migrate into the blood circuit.

Key words: endovenous laser obliteration, combustion products

9. 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 et o 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 issue 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 isolated 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.

Conclusions: Based on the comparison of topographic and anatomical peculiarities of the location and structure of the appendix, as well as of surgery in rabbits can be concluded that the use of rabbits as experimental animals for modeling appendectomy during practice-oriented training as an alternative et o engaging in experimental dogs is reasonable and will allow students to virtually secure knowledge of the topic and to gain practical experience of surgical intervention.

Key words: Appendectomy, rabbits, experiment