

urinations, in decreasing of cognizing activity (CA) and grooming. Monoinjection of carbamazepine (gr.3) contributed in statistically reliable decreasing of HMA, VMA, CA, grooming, the amount of defecations concerning to starch edema (gr.2) and control group (gr.1). The adding to capbamazepine a caffeine (gr.4) and paracetamol contributed to statistically reliable decreasing (concerning to group 3) of HMA, VMA, the amount of defecations and did not has an influence on CA, grooming, the amount of urinations.

**Conclusions**. 1. Carbamazepine and its combinations with caffeine and paracetamol in starch edema conditions have an influence on EBR of rats. 2. It is need to be researched the influence of three-component compounds (carbamazepine, caffeine, paracetamol) on the EBR of rats in starch edema conditions. 3. It is perspectival to research an influence of nitrocontaining drugs on EBR of rats in starch edema conditions in the view if mono-, two-, three-component combinations in other model pathologies' conditions.

## Filipskiy I.O., Ryhlik S.V. THE METHOD FOR PREPARING HISTOLOGICAL SLIDES OF THE REPRODUCTIVE SYSTEM

## Kharkiv national medical university, Kharkiv, Ukraine

**Introduction.** Such organs of the reproductive system as prostate gland, testes and epididymides have thin delicate structure that is easily damaged during histological processing.

**Aim:** To study the methods for preparing and staining slides of the prostate, testes, testicular appendages of the dog.

Materials and methods. Samples of prostate gland with the size from 0.5 cm till 1 cm were fixed in 10 % formalin solution for 48 hours. Then were used conventional methods of dehydration and embedding in paraffin. In a first step the samples were carried out through alcohols of 70°, 80° and 96° (3 portions). Embedding in paraffinbegan with dipping the samples in a mixture consisted of chloroform and paraffin in equal parts (1:1) for 40 minutes in a thermostat at 37°C. Then the samples were placed in the paraffin № 1 for 40 min., then in the paraffin № 2 for 40 minutes, and then were embedded in the paraffin № 3 for additional 40 min. As a rule, the Merkulov's method specifies embedding time for 30 min totally. Thus, we had to change the exposure during placing tissue in paraffin. The next step was to make thin (7mc) histological slides and stain. For review, we used the conventional histological hematoxylin-eosin staining, but we didn't use Merkulov's hematoxylin and Koratsi's hematoxylin, in combination with a short exposure in the dye (2-3 min. instead of 5-10 min.).

**Results and conclusions.** Changings in the exposure while embedding in paraffin and stain method differences made it possible to clearly identify all the cellular elements of the glands and their non-cellular structure. Additionally this staining process was faster, and did not affect the quality of stained slides prepared.

## Frieda Tangi Silvanus, Boyagina O.D. MORPHOLOGICAL AND FUNCTIONAL FEATURES OF THE BREAST Kharkiv national medical university, Kharkiv, Ukraine

**Introduction.** The breast is regarded as an accessory female genital organ. The main function of the breast is the sucking of infants. The breast lies on the surface of the major



pectoralis muscle. It extends proximally from the 2<sup>nd</sup> to the 6<sup>th</sup> rib distally and laterally from the sternum to the midaxillary line medially. The upper lateral part of the breast ascends into the axilla and is known as the axillary tail. The breast consists mainly of adipose tissue. The nipple, pointing anteriorly, lies between the 4<sup>th</sup> and 5<sup>th</sup> rib spaces. It is surrounded by a pink pigmented area. The areola becomes pigmented during pregnancy and contains a number of subcutaneous glands.

Results and conclusions. Various types of tissues are found in the breast. The glandular tissue of the breast consists of +- 20 lobes. Each lobe contains a number of lobules, which consist of glandular tissue. The alveoli of the glands are continuous with the lactiferous duct, which join to form 15-20 larger ducts leading to the areola. Just before the opening on the nipple, the ducts dilate to form milk sinuses. Fibrous connective tissue, this is found around and between the lobules of the lobes. Adipose tissue located around and between the lobules of the lobes, but also covers the surface of the breast just under the skin. Blood supply: the medial aspect of the breast is supplied by the perforators of the a. thoracia interna. The lateral aspect of the breast is supplied by the a. thoracia lateralis, a branch of the a. axillaris, as well as by branches of the posterior intercostals arteries. The venous drainage of the breast is by means of a venous anastomosis around the nipple, which drains to v. axillaris and v. thoracia interna. Lymph drainage: Lymphs drain mainly into the axillary lymph nodes. Nerve supply: the breast is supplied by the 4th, 5th and 6th thoracic spinal nerves, which also have sympathetic branches. Many sensory nerve endings is present in the breast, especially in the region of the nipple.

## Ghranyna E., Schebetun A. MEDULLA OBLONGATA IS THE VITAL CENTER OF THE BRAIN Kharkiv national medical university, Kharkiv, Ukraine

Introduction. A particular interest to the study is the medulla oblongata (MO) - part of the brain that performs a huge role in human life and having a length of about 25 mm. This department of CNS (central nervous system) performs several vital functions in the body. There are pyramids and olives outside, on the ventral side. On the dorsal side there are thin and wedge-shaped beams with thin wedge-shaped tubercles nuclei at the end, the lower half of the rhomboid fossa, which is the bottom of the fourth ventricle, and separating it rope bodies, lower legs of the cerebellum. The MO as well as the spinal cord (SC) performs two functions reflex and conductive. Eight pairs of cranial nerves (from V to XII) leave the medulla and the bridge, and the former as well as the spinal cord has sensory and motor direct links with the periphery.

**Results.** Through the MO the following reflections function: protective reflexes (cough, sneezing, blinking, tearing, vomiting), food reflexes (sucking, swallowing, secretion of digestive glands), cardiovascular reflexes regulating the activity of the heart and blood vessels. Also the automatically functioning respiratory center which provides ventilation is located in the MO and vestibular nuclei are located here. Therefore, not just delete, but even damage of the MO results in death. In addition to the conductive function, the medulla performs the explorer function, the conductive paths run along the MO. They connect cerebral cortex, diencephalon, midbrain, cerebellum and the SC with two-way link. The descending vestibulospinal tract begins from the vestibular nuclei of the MO. It is involved in the implementation of the posture reflexes, namely the redistribution of muscle tone. Poliomyelitis affects motor neurons in the SC and the MO (only in the cases when the