fourth stage of GAC the levels of glucose and Mg^{2+} were significantly decreased for 61% and 28%, respectively, from normal referent levels.

Conclusion. The research showed the significant changes of the carbohydrate metabolism in patients suffered from GAC with the dominance of anaerobic glycolysis and subsequent depletion of the energetic resources.

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SHAPES OF STOMACH AND PATHOLOGIES ASSOCIATED WITH THEM

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Background. Due to the fact that pathologies of stomach are fairly common diseases nowadays, the problem of diseases associated with the shape of stomach is a very topical issue.

The shape of stomach is determined by the state of its longitudinal, circular and oblique muscle fibers. In addition, its size and shape show considerable variability, which depends both on the individual features and on the degree of filling of the stomach. Distended stomach has a bigger bulk and it is more stretched than an empty one, so the shape of stomach is a bit different under various conditions. In addition, its shape depends on the topographic anatomical relationships with other organs, the condition of ligaments, body position and a number of other reasons. Based on our investigations we have ascertained that there are 5 main shapes of stomach.

Results. Retor-shaped stomach is observed most frequently. There are clear boundaries between the alimentary bag and the digestive evacuatory canal of stomach; the angle sulcus and the angle of the stomach are well-marked. Falciform shape is characterized by uniformly narrowed stomach and the distance between small and large curvature is less than in retor-shaped stomach. The stomach has a low capacity; its walls are very dense and have prominent mucosal folds, the stomach is more resistant to changes in shape due to age, this shape is more common in young people, and sometimes even in old age. Pear-shaped stomach occurs at the initial stage of expansion of the organ. It is characterized by smoothing clear boundaries between the digestive canal and the alimentary bag. The angle and intermediate sulci are less prominent in this shape. The boundaries between the body of the stomach and the pyloric part of it are even more smoothed; this form is more common in the elderly. Hourglass-shaped stomach is less common; clear restriction on the boundary between the body and the pyloric part in the intermediate sulcus region is characteristic for this shape. The body of the stomach is more or less expanded. Such form of stomach is often observed in cicatrisation of ulcers. Some scientists also identify cascade-shaped stomach, which can evidence a number of pathologies; many researchers think that this form of the stomach can be caused by spasms, others consider such form to be a sign of cholecystitis.

Radiology distinguish 3 main types of stomach, they are corn-shaped, uncus-shaped and stocking-shaped. Corn-shaped stomach is common in patients with ascites, tumors of the abdominal cavity and sometimes it can be found in pregnant women. The shape of stomach can change due to neurogenic spasm of its lymphatic vessels, due to chronic venous congestion and the subsequent edema. Sometimes the lower pole of the stomach descends into the pelvic cavity, but the gastric fundus is still in contact with the diaphragm, this position is called bathygastry (this type of the stomach is also called elongated gaster).

Conclusions. Thus, the problem of studying the association of shapes of stomach with its pathologies is currently open and quite topical due to active evolution of methods of treatment.

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INFLUENCE OF CAFFEINE, CARBAMAZEPINE AND THEIR PHARMACEUTICAL COMPOSITION ON THE EMOTIONAL AND BEHAVIORAL RESPONSES IN RATS UNDER FORMALIN EDEMA

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Background. The most common and informative test in studying the effect of drugs on the emotional and behavioral responses (EBR) is test "open field". Combination of drug is often used to increase the efficiency of the drug in medical practice. After analyzing the literature date, it was found that quite often in the combined analgesic drugs caffeine is included, and carbamazepine plays the role of secondary analgesic. There is no information about existing of caffeine and carbamazepine combination in pharmacy.

The aim of the work is to study the effects of caffeine, carbamazepine and their combinations on the EBR in rats in testing in the "open field" under formalin edema.

Materials and methods. 30 WAG straine rats of both sexes with average weight of 210-230 g were examined. The animals were divided into 5 groups of 6 in each group. Assess the impact of drugs and their combinations on the characteristics of the behavior of animals was performed by comparing groups 3-5 with formalin edema (group 3 – caffeine (0,6 mg/kg), group 4 – kabamazepin (6,25 mg/kg), group 5 – a combination of carbamazepine (6,25 mg/kg) and caffeine (0,6 mg/kg) with the positive control (group 1 - 3% starch mucilage, 2 ml per 200 g of animal weight) and the negative control (group 2 – 3 % starch mucilage, 2 ml per 200 g of animal weight under formalin edema) against the background of the maximum development of the formalin edema (4 hours after the stimulation). Examined drugs were administered into stomach once in the form of suspension of 3 % starch mucilage for 1 hour prior to the development of maximum edema, 3 % starch mucilage was administered similarly. The resulting digital data was processed with standard methods of statistical analysis using MS Excel and Stat Graphics Plus 2.1.

Results. Parameters of rats orienting-research activity in the test "open field" are characterized by following values: the number of squares crossed (horizontal