were divided into 3 groups; dominant,balanced and submissive. Serotonin content in brain regions was determined by fluorometric micromethod.

Results: According to the results obtained the serotonin level was significantly decreased in all investigated brain regions of rats with submissive behavior type versus both balanced and dominant ones. In dominant animals versus balanced ones, the tendency to the increase in serotonin content was observed. Our results supports the assumption of Neumann I.D et al. (2010) about a different role of serotonin in adaptive form aggression such as social dominance (activation of serotoninergic neurotransmission) versus abnormal forms of aggression (reduced serotoninergic neurotrnsmission). Strong positive correlations were revealed between serotonin content in cerebellum and hippocampus, between serotonin content in cerebellum and frontal cortex in al investigated.

Conclusion: The decrease of serotonin content in all investigated brain regions in submissive rats indicates the importance of serotonin deficiency in the formation submissive behavior type. The same direction of serotonin changes in the the hippocampus, frontal cortex and cerebellum, strong correlation between serotonin content in cerebellum and frontal cortex/hippocampus of all behavior type rats is evidence of cerebellum involving in the formation of realization of submissive and dominant behavior types.

Avilova O.V.

METASTRUCTURE OF THE SPLEEN UNDER THE IMPACT OF TRYGLYCIDYL ETHER OF POLYOXYPROPYLENE TRIOL

Research advisor: Tereshchenko A.O., professor, Kolisnik I.L., assistant professor
Department of human anatomy, Kharkiv National Medical Iniversity, Kharkiv, Ukraine

Actuality. The polyethers, as widely used xenobiotics not only in manufacture but in everyday life, have huge influence on human's organism, that dictates the need for thorough study of the impact of this chemicals on the spleen metastructure.

The aim of the study was to investigate the structural features of the spleen of rats under the impact of tryglycidyl ether of polyoxypropylene triol, that is related to the class of polyethers.

Materials and methods: The morphological study was performed

on white Wistar outbred rats, during 30 days to the animals was administered by mouth the chemical substance - tryglycidyl ether of polyoxypropylene triol in a dose of 1\100 DL50 by a metal probe. Changes were studied on paraffin sections using conventional histological and histochemical methods (hematoksylyn-eozin, pikrofuksyn by Van Hizonu, Feulgen-Rosenbeka reaction, Brush reaction, the Daniels reaction, and lipid staining on frozen sections by Sudan III).

Results: it is established that tryglycidyl ether of polyoxypropylene triol exposes nuclei of reticular cells of the spleen acquire an elongated shape.The nuclear membrane is smooth, loosened. The chromatin in the form of osmophilic lumps concentrated along karyolemma and had a homogeneous structure. In the center of the nucleus formed zone of very low electron density. A few mitochondria had a slightly elongated oval shape and localized mainly in the perinuclear cytoplasm. A significant number of mitochondria contained a large number of cristas. Mitochondrial membrane was partially destroyed. The granular endoplasmic reticulum is well developed, but it's cisternas are greatly expanded and formed a system of fairly large vacuoles filled with coarse-fibred substance of medium density. There were detected ribosomes on the membranes of the endoplasmic reticulum but in a very small number.

Conclusions: our study had revealed dystrophic and destructive changes of intracellular membrane structures, that shows activity reparative processes reduction, changes of cells bioenergy, that is structurally proved by destruction of membranes and mytochondria's cristas.

Berdikova Julia

FEATURES OF PENETRATIVE ACTION OF BULLETS AT SHOTS FROM AN AIR RIFLE DEPENDING ON A DISTANCE OF SHOTS

Research advisor: Prof. Olhovsky Vasily Alekseevich
Kharkiv National Medical Iniversity
Departament of Forensic Medicine, Medical Law

Actuality. It is known that the general regularities of penetrative action of the bullets which are let out from air rifles is that most intensively she is shown at shots at a distance to 5 m if the weapon is worn a little out, and to 5 m - on the worn-out weapon. Penetrative action of bullets depends on their speed at the time of a meeting with a barrier and,