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МАТЕРІАЛИ СЬОМОЇ ВСЕУКРАЇНСЬКОЇ НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ З МІЖНАРОДНОЮ УЧАСТЮ

«ТЕОРІЯ ТА ПРАКТИКА СУЧАСНОЇ МОРФОЛОГІЇ»

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synthase and S-100 using the immunofluorescence method.

Results. All indicators of these chemicals showed what changes occur in the spinal cord after the formation of metabolic syndrome. Against the background of the activity of metabolic processes in young rats, we observed an increase in the indicator of nitrotyrosine and inducible nitric oxide synthase, as an indicator of a pathological state, but against the background of intensive activity of metabolic processes, which are more pronounced in young rats, and the indicators of glutathione reductase sharply decreased in comparison with the control group.

Conclusion. Thus, in our study, the indicators of neurotransmitters of spinal cord cells — nitrotyrosine, glutathione reductase, iNOS — inducible nitric oxide synthase and S-100 were analyzed using the immunofluorescence method. That is, against the background of the activity of metabolic processes in young rats, we observed an increase in the indicator of nitrotyrosine and inducible nitric oxide synthase, as an indicator of a pathological state, but against the background of intensive activity of metabolic processes, which are more pronounced in young rats, and the indicators of glutathione reductase sharply decreased in comparison with the control group, which indicated the processes of hypoxic phenomena, which were the worst in young rats, which we interpreted as the activity of the reaction at the metabolic level, and S-100, a binding protein that participates in the processes of cell growth, was increased in comparison with the control group, which we interpreted as a more pronounced pathological condition in metabolic syndrome at the cellular level.

STUDY OF THE IMPACT OF CONTINUOUS INHIBITION OF LUTEINISING HORMONE SYNTHESIS ON THE HEPATIC MACROPHAGE POPULATION

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Introduction. Kupffer cells are the liver's resident macrophages and play an important role in its homeostasis. Macrophage polarisation could play a significant role in the pathogenesis of liver diseases along with hepatocyte regeneration. Testosterone has a remarkable effect on macrophages in the body. Testosterone inhibits the polarisation of macrophages towards a pro-inflammatory phenotype (M1). The involvement of macrophage-derived inducible NO synthase (iNOS) is essential for the M1-M2 balance, as iNOS regulates the expression of signature genes in M1 macrophages and governs the production of proinflammatory cytokines.

The aim of the study was to determine the distribution, morphogenesis and dynamics of variability of Kupffer cell subtypes in the liver parenchyma under conditions of central

blockade of luteinising hormone (LH) synthesis with tryptorelin.

Materials and methods. The study was performed on 20 sexually mature white male rats. The animals were divided into 2 groups: control (10 animals) and experimental (10 animals). Animals in the experimental group were injected with a solution of tryptorelin acetate at a dose of 0.3 mg of the active ingredient per kg of animal weight. They were withdrawn from the experiment on the 30th (5 animals) and 365th (5 animals) day. The material was embedded in paraffin and stained with hematoxylin-eosin. The activity of iNOS and Arg was determined in 10% liver homogenate.

Results. In the experimental group on days 30, the liver structure was preserved; the diameter of the hepatic triad veins was increased by 12% compared to the control group. Bile ducts are not changed. The central veins are a little dilated, full-blooded; erythrocytes and a small quantity of leukocytes are detected in the lumen. Capillaries of sinusoidal type are extended. Kupffer's cells are identified, the number of which is increased compared to the control.

On the 365th day of the experiment, semi-thin sections of the liver showed that the central veins were blood-filled and sludge of red blood cells could be observed. Sinusoidal capillaries are enlarged by 18%. Kupffer cells number was increased by 2.3 times with minor changes in the ultrastructure. In the experimental group on 365th day, the activity of iNOS in the liver was 8.2% reduced in compare with control group (1.12±0.07 vs. 1.22±0.09; $p<0.05$). Arginase activity was 24% lower (1.43±0.03 vs. 1.88±0.03; $p<0.05$).

Conclusion. Central inhibition of the synthesis of LH by tryptorelin leads to morphological changes in the liver parenchyma and the ratio of Kupffer cells from day 30 to 365 of the experiment, as well as to a shift in the level of functional activity of L-arginine-dependent enzymes towards the dominance of iNOS activity. The reason for the change in the polarisation of liver macrophages towards the prevalence of a proinflammatory phenotype may be a reduction in the inhibitory influence of testosterone on macrophages.

ВАРІАНТНА АНАТОМІЯ ШИЛОПОДІБНОГО ВІДРОСТКА СКРОНЕВОЇ КІСТКИ, ЯК ОБ'ЄКТ СИНДРОМАЛЬНОГО РОЗЛАДУ

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Шилоподібні відростки скроневої кістки, як об'єкт синдромального розладу, зумовлюють комплексне порушення, що описується у клініці як шилопід'язиковий синдром або синдром Ігла-Стерлінга (Eagle-Sterling syndrome) – захворювання, причиною якого є подразнення шилоподібним відростком скроневої кістки (його