COMPARATIVE DESCRIPTION OF THE MORPHOLOGICAL INDICATORS OF THE GESTINAL GLAND IN LIVER INJURY UNDER EXPERIMENTAL CONDITIONS

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Annotation: Infertility is a disease that affects millions of men of reproductive age worldwide today, and its negative impact on families and society makes this pathology an urgent global medical and social problem. Male infertility can be caused directly or indirectly by many diseases and factors. Liver damage negatively affects the morphofunctional parameters of the testicles.

Keywords: infertility, liver, hepatobiliary system, germ cells, rats.

Relevance: In fact, male infertility is not a nosological form. It is a pathological process that can be caused directly or indirectly by many diseases and factors that are very diverse in nature. In their studies, S. Karamolahi et al. evaluated the effect of viral hepatitis B and C (HBV and HCV) on the quality of male sperm and concluded that these diseases negatively affect such parameters as concentration, motility and morphology. [Сизоненко М.Л., 2015]. Literature data show that chronic liver damage of various genesis in female rats leads to the development of non-specific changes in the morphofunctional structure of the interstitial space of the testicles of their offspring, which is reflected in changes in the volume of interstitial tissue, the total number of endocrinocytes and their various morphofunctional types, as well as the concentration of hormones produced by them. Damage to the hepatobiliary system of female rats causes changes in the microenvironment of developing male germ cells, which is manifested in a decrease in the number of CD68+ cells in the testicular interstitial connective tissue of experimental animals [Babanin A. A., Ulanov V. S., 2014; Masluakova G. N., 2016].

One of the links in the pathogenesis of impaired formation of the generative department of the male gonad is the activation of the apoptosis process of male germ cells, which is confirmed by an increase in the number of active cells (CPP32) and a decrease in the number of Bcl-2+ in the spermatogenic layer of experimental animals. The pathology of the hepatobiliary system of female rats is accompanied by the development of oxidative stress in the testicular tissues of their offspring, which is manifested in changes in the oxidation indices in the heptane and isopropanol phases in the homogenates of the testicles of experimental animals [Пауков В. С., Ерохин Ю. А., 2020]. Experimental modeling of chronic pathology of the hepatobiliary system in female rats is

accompanied by changes in the cytokine profile in the blood serum of their offspring, which is manifested in changes in the levels of anti-inflammatory cytokines IL-β, IL-2, IL-8 and TNF [Bilalov B.E., 2024]. Numerous fundamental studies devoted to the problem of the complex effect of exogenous and endogenous influences on the human body have proven their depressive effect on the regulatory systems of the organism. At the same time, the study of morphological indicators of the testis in the liver damage of the testis in experimental conditions of testicular tissue, which is sensitive to disturbances in homeostasis, remains relevant for researchers.

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