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ABSTRACT BOOK



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PATHOPHYSIOLOGICAL ASPECTS OF LIVER DAMAGE IN PREGNANT RATS UNDER EXPOSURE TO ADVERSE EXOGENOUS FACTORS

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BACKGROUND-AIM

According to the WHO data there is an increase in number of gastro-intestinal tract pathology cases. One of the most significant parts of these cases is liver damage. A key role in the development damage in mother's liver during pregnancy belongs to different exogenous adverse factors of healthy life-style such as pernicious habits, unbalanced nutrition etc. The aim of present work is to determine the aspects of liver damage among pregnant rats under exposure to adverse exogenous factors.

METHODS

The research was conducted 27 rats (WAG population). Rats were subdivided into 3 groups: 1) the control group; 2) rats affected by hypodynamic stress; 3) rats underwent the unbalanced nutrition. The complex of morphometric and biochemical analysis of liver tissue was carried out to evaluate the rate of liver damage from factors mentioned above.

RESULTS

Generally homotypic changes in liver structure were observed both after chronic stress and excessive nutrition. The dyscompletion of acini structure, the increase of binucleate cells quantity were observed in both experimental groups, however with the difference in rate (120% in 2nd group, 50% in the 3rd one). Moreover, the stromal-parenchymal index was increased because of relative stroma volume growth among the rats of 2nd group. At the same time the examination of liver homogenate samples revealed the similarity of changes in tissues of 2nd and 3rd rat groups including the rise of cholesterol, non-etherified fatty acids and triglycerides together with differently rated lowering of phospholipids.

CONCLUSIONS

The mechanisms of chronic stress impact which may lead to liver cirrhosis and fibrosis appeared to be almost identical to the effects of excessive nutrition.



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