

Determination of HEPATOTROPIC effects of certain substances in experimental toxic hepatitis

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Annotation

Some substances have an antioxidant effect, it is necessary to study their pharmacological action and the mechanisms of their functioning. Various studies are being carried out to study the antioxidant effects of Beh and Summax. It was found in experiments that the activity of antioxidant enzymes in the composition of liver homogenate is corroded by the action of selected substances. An important place in the development of hepatitis in the liver is occupied by increased peroxidation processes, the formation of free radicals.

Relevance. In liver diseases, a violation of metabolism is observed, which is especially manifested by a sharp trace of lipid metabolism. The main places in the development of acute and chronic diseases of the liver are occupied by increased peroxidation processes under the influence of various xenobiotics of lipids, the formation of free radical products. [5, 6, 7]. These radicals formed have a toxic property, leading to the degradation of the membranes of hepatocytes and a state of cytolysis. The intensification of lipid peroxidation processes is associated with a decrease in the activity of the anti-oxidation antioxidant system in the liver tissue and a decrease in the activity of superoxiddismutase, which are the main enzymes of this system, as well as catalase [1, 2, 3]. The study of the effective antioxidant effect of collectable substances in the treatment of liver diseases is considered one of the main problems of practical medicine. Therefore, one of the urgent problems is the search for drugs made from natural substances, drugs with hepatoprotective properties, bioactive substances, their application to practice [5, 6].

Material and styles. To carry out the studies, it was developed by administering 0.8 ml/100 gr of a 50% fatty solution of tetrachlormethane (SCl₄) under the skin of 40 ungodly white rats weighing 240-260 g for 4 days in microns per body weight [8]. Checks were carried out in 6 groups, and 6-8 rats were used in each group. During the experiment, the first intakt group monsters were injected with distilled water with an oral orc. Toxic hepatitis was developed by administering 50% fatty solution of tetrachlormethane SCl₄ substance under the skin of animals of the second control group in an amount of 0.8 ml/100 gr for 4 days; from the vaccine injected with tetrachlormethane substance into the animals of the third, fourth, fifth, sixth groups to prevent the development of the disease maxadida summax, quercetin and bex 100

mg/kg essential substance was administered orally ORCALI in microns of 50 mg/kg. From lipid extract isolated from animal liver spills, the products of lipid peroxidation processes were conjugated Dienes and dienketones [4], microns of Malonaldehyde [8] and CT activity [8] spectrophotometer were determined using Agilent technology Care 60. The results obtained were calculated by the method of variational statistics [9] based on the Student criterion.

Results and discussion. From the studies carried out, it became clear that the development of toxic hepatitis under the influence of tetrachlormethane in white rats in the control group led to a decrease in the activity of the antioxidant system in liver drain and an increase in the micron of products of the peroxidation process, in addition, 73.9% of the micron of conjugated Dienes - 93.4% and a decrease in their activity was manifested in 43.6 and 60.6. The course of these changes in the liver of rats depends on the prooxidant effect of the hepatotoxin - tetrachlormethane substance, since this toxic substance is metabolized in the monooxygenase system of liver microsomes, dressing SSl_4 and $SSl_4 O_2$ - radicals, which affect the molecules of fatty acids and accelerate the processes of peroxidation of lipids. Prevention of toxic hepatitis substances that are struck in the maximum: ascorbic acid, summax and bex Hamda hepatoprotector substance essential are given naphthalene without slowing down the development of the disease, but also provide an effective antioxidant effect.

1 table

Evaluation of the effects of Dienes and dienketones and certain substances in animals with toxic hepatitis

($M \pm m$; $n=5$)

Groups	Blood-induced Dienes Yed / l	Blood-induced dienketones Yed / l
Control (NaCl 0.9%)	0.684 \pm 0.018	0.269 \pm 0.022
Experience (SCl_4)	0.987 \pm 0.027	0.51 \pm 0.02
Bex 100 mg/kg	0.900 \pm 0.06	0.347 \pm 0.04
Essensiale forte 50 mg/kg	0.890 \pm 0.001	0.292 \pm 0.01
Summax	0.916 \pm 0.05	0.392 \pm 0.018
Kversetin	0.877 \pm 0.05	0.257 \pm 0.018

Under the influence of Summax and bex solution, the micror of conjugated Dienes and dienegetones was reduced by 18 and 51.1% of the Malone dialdehyde by 34.7%, and the Colgan substances kamrook the micror of these corsactors when they were treated to it.

2 table

Assessment of changes in the process of peroxidation of lipids and the effect of certain substances in animals with toxic hepatitis

($M \pm m$; $n=5$)

Groups	MDA Mkmol/l	Sad Yed/l	Catalase mkKat/ml
Control (NaCl 0.9%)	2.53 \pm 0.39	2.96 \pm 0.31	38.02 \pm 1.09
Experience (SCl ₄)	3.87 \pm 0.28	2.52 \pm 0.49	22.39 \pm 0.68
Bex 100 mg/kg	2.74 \pm 0.23	2.78 \pm 0.18	27.45 \pm 0.79
Essensiale forte 50 mg/kg	3.08 \pm 0.19	2.78 \pm 0.29	30.15 \pm 1.28
Summax 100 mg/kg	2.98 \pm 0.01	2.76 \pm 0.14	26.81 \pm 0.87
Kversetin 100 mg/kg	3.17 \pm 0.019	2.85 \pm 0.21	31.90 \pm 1.12

The enzymes of the Summax and bex antioxidant system increased the activity of SOD and CT by 77 and 77.7%. The antioxidant and hepatoprotective effect of Summax and Bex is probably due to the fact that the active bioligand in its composition has a synergistic effect on each other. Because, the antioxidant and antigypoxant effects of the substances summax and bex have been identified.

Conclusion: therefore, in hepatitis, summax and bex led to an increase in the activity of the antioxidant system. Hence, it turns out that the biocomposite of antigypoxant, antioxidant substances summax and bex solution has an effective antioxidant effect in toxic hepatitis.