

«Kamagel» – on the 2nd day there is a reduction of swelling injured areas, on the 4- 5th day –peeling has started, and 6 – 7th day – the complete healing has occurred, whereas the decrease of edema has occurred at 3-4 days for the control animals and the complete healing has occurred at 9-10 days .

The research of the potential allergenic effect of the cream «Enopsor» has been conducted according to the guidelines, using the method of skin applications.

The studies have shown that daily application of the study drug has no effect on the general condition of the animals. The guinea pigs have been active, the skin has been normal , any changes such as in the form of congestion, infiltration, desquamation, edema have not been observed. Skinfold thickness has also been almost unchanged in both the control and the experimental groups.

Conclusions . Thus, the cream «Enopsor» has shown a marked anti-inflammatory and reparative properties on the model of skin inflammation with a predominance of alterations – ultraviolet erythema. The obtained results on this model allow us to make a supposition that the stabilization of cell membranes plays an important role, mediated by inhibition of lipid peroxidation and reduction of antioxidant defense in the mechanism of anti-inflammatory and reparative actions, due to the content of polyphenols. The visible changes in the form of congestion, infiltration and other violations have not occurred, indicating the absence of sensitizing of the cream of polyphenol concentrate Grape cultural, in studying the allergenic effect of the cream «Enopsor» from the point of view of the skin .

APPLE POLYPHENOL EXTRACT DECREASED CHOLESTEROL LEVEL IN RATS UNDER INSULIN RESISTANCE

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Introduction. The number of cardiovascular diseases is constantly increasing. A key factor in the development of these pathologies is a violation of cholesterol metabolism, and, subsequently, atherosclerosis. Therefore, the search for new drugs that will regulate cholesterol levels is an important and urgent problem. Previously, we showed that apple fruit polyphenols demonstrated antioxidant and hepatoprotective activity. Apple fruit polyphenol extract reduced the processes of lipid peroxidation in the liver and normalized the permeability of hepatocytes membranes.

Aim. Taking together these facts and taking into account the key role of the liver in cholesterol metabolism the aim of our study was to investigate the effect of apple fruit polyphenolic extract (APE) on the cholesterol content in the blood of experimental rats under insulin resistance.

Materials and methods. The studies were conducted on female rats weighing 190 ± 15 g, kept under standard conditions in the vivarium NUPh. Insulin resistance (IR) was modeled by keeping animals on the high-fat diet enriched by fructose for 5 weeks. APE was administered from the 3rd week of the experiment intragastrically for 14 days. Rats were decapitated, blood was collected for serum. Total cholesterol (Ch) level and Ch-LDL and Ch-HDL levels were measured in serum. The data obtained were processed statistically.

Results and discussion. The development of experimental IR was accompanied by an increase in the total Ch content from 4.53 ± 0.024 (intact) to 6.67 ± 0.97 mmol/l (group IR), Ch-LDL from 1.09 ± 0.07 (intact) to 2.47 ± 0.56 (group IR) and a decrease of Ch-HDL level from 2.14 ± 0.72 (intact) to 1.51 ± 0.39 mmol/l (group IR). The data indicate the atherosclerosis development in these experimental conditions. APE administration to rats with IR normalized the total Ch content, decreased Ch-LDL level in 1,44 times and increased Ch-HDL level in 1,56 times. The results may be related to the improved functioning of liver cells under these experimental conditions.

Conclusions. The results indicate that the analyzed polyphenols extract exhibited lipotropic effect and modulated Ch level in blood and improved metabolism of lipoproteins. Due to data obtained APE can be used for the correction of disturbances in liver insulin resistance and related pathologies.