

ANTIEXSUDATIVE ACTIVITY OF A NEW ANTI-INFLAMMATORY GEL ON THE THERMAL INFLAMMATION MODEL IN MICE.

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Introduction. Inflammation is a universal response to damage and occurs due to the effect on the body on various stimuli. The use of models of acute aseptic inflammation with a manifested exudation phase can establish the anti-inflammatory effect of the drug precisely at this stage.

Aim. The purpose of this study was to study the anti-exudative activity of a new anti-inflammatory gel on a model of thermal inflammation in mice.

Materials and methods. To evaluate anti-inflammatory activity, they were replicated by immersing the posterior right paw of the mice in hot water. Experimental animals were divided into 5 groups: Group 1 - control pathology; group 2 - animals that were applied the investigated gel for therapeutic purposes; group 3 - animals that were applied the psycho-balm for therapeutic purposes, group 4 - animals for which the gel was studied for therapeutic and prophylactic purposes, and group 5 - animals used for the treatment of psycho-balm with a therapeutic and prophylactic purpose. Inflammation was reproduced by immersing the posterior right paw of mice in hot water at a temperature of 66.5 ± 0.5 ° C for 4 s. 24 hours after the reproduction of thermal inflammation, the mice were with drawn from the experiment by the dislocation of the cervical vertebrae under etheric anesthesia. The animals were cut off both hind legs at the level of the supraophortic joint, weighed on the torsion weights of the mark "VT-500" and determined the difference in weight between swollen and healthy legs. The anti-inflammatory activity of gels was estimated by decreasing the edema of the paw in animals with thermal burn as compared with the control group.

Results and discussion. During the simulation of pathology in animals, acute inflammation developed, which was manifested by hyperemia and edema of the paw. In the control group mice, the difference between the experimental and control paws was 70.8 mg. The treatment of swollen legs contributed to the suppression of the inflammatory process, which was manifested by decreased edema compared to control in all the experimental groups. At therapeutic and prophylactic application, the anti-exsudative activity of the gel studied was significantly higher than in the treatment. The effect of different types of application of the studied gel somewhat inferior to the drug comparison of psy-balm.

Conclusions. Analysis of the results of anti-inflammatory activity in different types of application showed that the new anti-inflammatory gel has shown a fairly high efficiency (32% for therapeutic and prophylactic application and 25% for therapeutic application) and is useful for further research on different models of inflammation and at different stages of the inflammatory process.

HEPATOPROTECTIVE EFFECT OF APPLE POLYPHENOL EXTRACT IN RATS UNDER EXPERIMENTAL INSULIN RESISTANCE

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Introduction. According to International Diabetes Federation, the number of patients with diabetes mellitus increased from 30 to 382 billion during last 40 years and 90% of them have diabetes mellitus type 2 (DM2). DM2 is preceded by the insulin resistance state (IR). IR is accompanied by a violation of glucose transport and utilization in cells. In these conductions hyperglycemia, dyslipidemia and insulin secretion disorders develop. Prolonged hyperglycemia and hyperlipidemia stimulate ROS production and oxidative stress development. ROS stimulate lipid peroxidation and plasma membrane damage, which in turn lead to the defeat of various cells and DM2 complications development. There has been an increasing appreciation and understanding of the link between dietary fruit and vegetable intake and improved health in humans.