

**PHARMACOLOGICAL STUDY OF AN OINTMENT WITH EXTRACT
OF LICORICE ROOT ON THE EXPERIMENTAL MODEL
OF NON-ALLERGIC CONTACT DERMATITIS**

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The unifying symptom of the most common skin diseases is an inflammation of the skin. Thereby the aim of this study was to investigate the anti-inflammatory activity of the ointment "Allergolik", which contains the dry extract of licorice rhizome, on the experimental model of non-allergic contact dermatitis (NCD) in rats.

In the experiment were used 24 white nonlinear rats, which were divided into 4 groups: I group – intact control, II group – control pathology (CP) – untreated animals with NCD, III group – experimental animals with NCD, which were treated with the ointment "Allergolik" (the ointment "Allergolik" was developed at the Department of Drug Technology under the guidance of professor Yarnykh T.G.), IV group – reference group – animals with NCD, were treated with reference drug – ointment "Fladeks" (LLC "Pharmaceutical company "Zdorovie", Kharkiv, Ukraine). For modeling pathology turpentine was applied on the depilated area of the animals' skin daily for 10 days. Skin treatment was begun immediately after the pathology modeling for the next five days. Effectiveness of the ointment "Allergolik" was evaluated by leukocyte indices (leukocytes / rate of erythrocyte sedimentation index (LRESI), index of blood leukocyte shift (IBLS), leukocyte index of intoxication (LII), lymphocytic-granulocytic index (LGI), nuclear index (NI), leukocyte index (LI), Krebs index (KI)), which were determined before the experiment (baseline), on the 10th day of turpentine applying (the last day of disease modeling); on the last day of the local treatment (5th day of the skin treatment or 15th day of the experiment).

An analysis of leukocyte indexes showed that the development of NCD at the peak of pathology in rats of all studied groups was accompanied by a significant increase of LRESI (in 4.6-5.3 times), LII, IBLS, KI (in 1.6-1.8 times) and decrease of LI, LGI (in 1.6-1.8 times), which confirms the presence of a pronounced inflammatory reaction and intoxication in the animals body, characterizes the development of a complicated course of dermatitis with a violation of immunological reactivity; indicates the suppression of phagocytic reactions activity. At the end of the treatment in groups III, IV, there was a significant decrease of the indices of LRESI, LII, IBLS, KI relatively to the peak of the pathology in 1.5-3.2 times, and an increase of LI, LGI in 1.5-1.9 times. At the same time in the CP group, only decrease of the LRESI (in 1.4 times) was observed relatively to the peak of the pathology. It should be noted that according to the indicator LRESI, which reflects the severity of the inflammatory process, the group "Allergolik" significantly exceeded the "Fladex" group in 1.4 times.

Thus, the study of the integral hematological indicators allows us to conclude about favorable prediction of the NCD on the background of treatment with ointment "Allegrolic", which does not require additional antibacterial and immunomodulatory therapy.