ANTIINFLAMMATORY ACTIVITY OF TABLETS FROM BARK ASPEN EXTRACT ON THE FORMALIN INFLAMMATION MODEL

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Actual problem of modern medicine and pharmacy is the development of effective anti-inflammatory agents plant based raw materials. Previously, we studied the pharmacological activity of the extract from the bark aspen and the expediency of a dosage form, especially as the global pharmaceutical market of more than 40 different drugs dosage forms of aspen. The chemical composition of the extract from the bark aspen defined by Professor V.N. Kovalev, dosage form - pill developed by Professor T.A. Groshovij.

The aim of the study was to determine the specific anti-inflammatory activity of tablets from the bark aspen extract (TBAE) in an experimental model of inflammation in the rat formalin versus Altan and diclofenac sodium.

Acute inflammatory edema was modeled by subcutaneous injection in the rat hind paw 0.1 ml of 2% formalin solution, which causes destruction of the protein membranes. Experiments were performed on four groups of rats for five animals in each: Group 1 - untreated animals, group 2 - TBAE treated at a dose of 50 mg/kg, group 3 - treatment comparator Diclofenac Sodium 8 mg/kg, and Altan group received 15 mg/kg. The study drug injected one hour before the injection of the inflammatory agent. After 3 hours of formalin injection amount of edema and the inhibition percentage of edema determined by onkometr.

Analysis of the results shows that the strong anti-inflammatory effect on the formalin model of edema, TBAE have a dose of 50 mg/kg. Their effect is not inferior to the effect of diclofenac sodium (64% and 62%, respectively), and exceeds the activity of comparator plant Altan (64% and 58%, respectively).

Such action of studied TBAE may be due to the inhibition of lipid peroxidation and the structural integrity of the membrane preserving, thus reducing vascular permeability.