MEDICINAL COMBINATION OF NSAIDS AND CARBOXYTHERAPY.

*Talanov A. A., Zupanets I. V. Scientific supervisor: Ph.D. Kononenko A. V. *Yaroslavl State Medical University, Yaroslavl, Russia. National University of Pharmacy, Kharkiv, Ukraine. izupanec111@gmail.com

Introduction. The social danger of joint pathology lies in the fact that more than 15% of patients become disabled with time, with a decrease in life expectancy by an average of 10 years. Among drugs for the therapy of these diseases, non-steroidal anti-inflammatory drugs (NSAIDs) and chondroprotectors occupy leading positions. The doctor faces a dilemma, or reduce the dose of NSAIDs and thereby reduce their side effects, but the effectiveness of therapy will decrease.

Goal. To study the promise of a combination of modern NSAIDs and carboxytherapy in a dose of 0.5 and 2 ml and regimens for 30 minutes before and 30 minutes after the administration of phlogogen.

Materials and methods. On the basis of Central research laboratory of NUPh on the model of carrageenan inflammation of the paw in rats, the anti-inflammatory effect of CO₂ therapy was studied. CO₂ was injected invasively and subcutaneously with a dose of CO₂ INDAP gas injections in doses of 0.5 and 2 ml to 48 rats in the region of distal paw joints. Anti-inflammatory activity was assessed by the degree of edema reduction in animals treated with carboxytherapy, as compared to animals in the control pathology group.

Results. Analysis of the results of the preclinical study of the effect of invasive introduction of CO₂ on the background of inflammatory swelling of the paw of rats showed that CO₂ in all the doses and regimens administered has an anti-inflammatory effect (except for a dose of 2 ml / animal 30 minutes after the administration of phlogogen). The greatest effect of CO₂ was observed with its preventive administration 30 minutes before carrageenan: the antiexudative effect was at the level of 25.75-28.5%, which is significant in relation to the control pathology group. This effect of carboxytherapy was statistically significant in comparison with the results of the control pathology. When analyzing the dose-dependence of the anti-inflammatory effect of CO₂, the results of the experiment showed that CO₂ in a dose of 0.5 ml had a better effect than a 2 ml dose: a moderate decrease in the edema of the rats under the effect of a CO₂ dose of 2 ml was statistically not significant.

Conclusions. Thus, when modeling articular pathology, it is rational to administer a dose of 0.5 ml of carbon dioxide 30 minutes before the introduction of phlogogen.