INVESTIGATION OF PHARMACOLOGICAL PROPERTIES OF DERIVATIVES OF D-(+)-GLUCOSYL AMMONIUM SALT OF N-PHENYLANTHRANILIC ACID

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Experience in the development of new safe anti-inflammatory drugs shows that great progress can be achieved if the research of NSAIDs goes in the way of combining low-toxic chemical compounds. As an example of these compounds is to create products based on derivatives of N-phenylanthranilic acids, which have anti-inflammatory, analgesic, diuretic, cholagogue, antimicrobial and antifungal activity, low toxicity compared to other NSAIDs.

The aim of our study was to investigate the anti-inflammatory activity of 6 compounds of D-(+)-glucosyl ammonium salt of 3-oxamoil substituted N-phenylanthranilic acid.

In the research we used 60 white non-linear mice with weight of 18-22 g, which were divided into 10 experimental, 1 control group and 2 groups of comparison drug.

In the group of derivatives of D-(+)-glucosyl ammonium salt of 3-oxamoil substituted N-phenylanthranilic acid, the most promising substance is the compound under the designation 1353- CGC, as it showed anti-inflammatory activity at the level of 33.73%, which exceeds the mefenamic acid. It should be noted that the introduction of glucosamine in the structure of N-phenylanthranilic acid increases the anti-inflammatory effect, which adjusts with the previous studies.

All other substances in their anti-exudative activity were less active and did not exceed the activity of sodium diclofenac.

As a result, analysis of the research results of 6 newly synthesized compounds showed that derivatives of D-(+)-glucosyl ammonium salt of N-phenylanthranilic acid have anti-inflammatory activity and they are a promising group to find safe substances with anti-inflammatory activity by means of their more detailed study and modification. Also, using the results of the study of anti-exudative properties, we observe the phenomenon of pharmacodynamic synergism, which is related to reciprocal potentiation of the pharmacological effects of glucosamine and N-phenylanthranilic acid.