acid in isopropanol. The solution was boiled and further acidified with hydrochloric acid. The next day the precipitate was filtered off, washed with water and boiled under stirring in acetone. After cooling, the precipitate is filtered off and washed twice with acetone. The next stage includes interaction with carbonyldiimidazole and correspondent amine.

Results and discussion. The analysis of the results states that some of the newly synthesized compounds in a range of 2-(4-Oxo-2-thioxo-1,4-dihydro-2H-quinazolin-3-yl)-acetamide derivatives has shown a statistically significant anticonvulsant effect according to the criterion of an intrarenal protective index – a decrease in lethality compared with co-control. They can be considered as highly effective anticonvulsants.

Conclusions. The obtained 2-(4-Oxo-2-thioxo-1,4-dihydro-2H-quinazolin-3-yl)-acetamide derivatives will be used for following syntheses and investigations in the range of perspective compounds with potential biological activity.

THE METHODS OF SYNTHESIS, ANALYSIS AND RESEARCHES OF THE PHARMACOLOGICAL PROPERTIES OF 5-BROMO-3-SULFAMOYL-2-R-PHENYLAMINOBENZOIC ACIDS

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Introduction. Derivatives of 2-aminobenzoic acids have been used long time in medical practice as anti-inflammatory, anticancer, antibacterial and diuretic drugs. But according to publications in scientific journals, patents, it becomes clear, that their potential has not been disclosed yet and these derivatives can be modified to create new medicines that are more effective and less toxic.

Aim. The aim of our work has been resynthesis, analysis and studied of pharmacological activity of sulfamoyl- and bromo-substituted 2-R-phenylaminobenzoic acids.

Materials and methods. 5-bromo-3-sulfamoyl-2-R-phenylaminobenzoic acids has been synthesized, using microwave radiation, by the interaction of 5-bromo-3-sulfamoyl-2-chlorobenzoic acids with arylamines in the medium of n-amyl alcohol in the presence of potassium carbonate and copper powder (scheme 1).

Scheme 1



Structures of compounds were confirmed by data of elemental analysis, ¹H NMR-spectroscopy and chromatomass spectroscopy.

For the assay of synthesized compounds, an express method has been developed. The basis of the two-phase titration method was chosen in the presence of an indicator that is not extracted with organic solvents.

Results and discussion. Synthesized 5-bromo-3-sulphamoyl-2-R-phenylaminobenzoic acid are crystalline substances, well soluble in alcohol, acetone, dioxane, in alkaline solutions and insoluble in water. The synthesized compounds were tested for anti-inflammatory, analgesic, diuretic, antibacterial activity.

Conclusion. According to the results of pharmacological studies, it has established that these compounds have high anti-inflammatory, analgesic and antibacterial activities.