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RESEARCH OF THE ACUTE TOXICITY OF YLIDENDERIVATIVES OF 2-[5-R-4-PHENYL-1,2,4-TRIAZOLE-3-YLTHIO]ACETATE ACIDS

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Topicality. To the synthesis and studying of the biological activity of carboxylic acids ylidenhydrazides is devoted several works. Nowadays, ylidenhydrazides of carboxylic acids are widely used in organic and analytical chemistry, and also as polymerization initiators, polymer's plasticizers and stabilizers. In addition, ylidenhydrazides of carboxylic acids are used in agriculture.

So, an actual task of modern pharmacy is the synthesis of ylidenhydrazides of 2-[5-R-4-phenyl-1,2,4-triazole-3-ylthio]acetic acids with further search of biological active compounds (R - theophylline).

The aim: the aim of our work is the synthesis and further research of the biological, antimicrobial, antifungal activity and acute toxicity of ylidenehydrazide of 2-[5-R-4-phenyl-1,2,4-triazole-3-ylthio]acetate acids.

Tasks:

1 To search an acute toxicity and biological activity of synthesized compounds, also to study their potential antimicrobial and antifungal activity.

2 To consider possible options for substances application in modern pharmacy and medicine.

Material and methods. To confirm the structure of synthesized compounds by means of elemental analysis, IR- , UV-spectroscopy, ^{1}H NMR-spectrometry, a and their individuality by means of thin layer chromatography.

As initial compounds for synthesis we used theophylline, from which through the raw of several reactions we obtained hydrazide of 2-[5-methyl-4-phenyl-1,2,4-triazole-3-ylthio]acetate acid. At hydrazide interaction with aromatic aldehydes in concentrated acetic acid during 12 hours we received correspond ylidenhydrazides.

Obtained compounds were used for preliminary prediction of their biological activity by means of computer program «PASS Online®».

Conclusions:

1. So, it is synthesized 12 ylidenderivatives 2-[5-methyl-4-phenyl-1,2,4-triazole-3-ylthio]acetate acid, the structure of which had already proved.

2 They were researched in acute toxicity.

3 Analysis of the obtained results suggests the prospect of further research of this class of compounds.