Results. It is important to note, that active compounds were revealed in extract: β-bisabolene, thymol, lutein and β-carotin. It can be concluded that the studied specie is relevant for further phytochemical study.

Conclusions. As a result of the experiment, it was found that these studies are promising for plant identification and the establishment of organic compounds.

COMPARATIVE CHARACTERISTICS OF ANTIARRHYTHMIC AND CARDIOPROTECTIVE PROPERTIES OF SOME 7-ETHYL-3-METHYL-8-TIOXANTHIN DERIVATIVES

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Methylxanthines of natural and synthetic origin are of biological and pharmacological interest. In dependence on the kind and place of substitution in one of xanthine rings, a large variety of pharmacological activities were reported.

The aim of the study: to investigate antiarrhythmic and cardioprotective activity of some newly synthesized derivatives of 7-ethyl-3-methyl-8-tioxanthin [compounds 1-10].

Material and methods. The arrhythmia was evoked in young male rats of Vistar line with mass 180-220 g anesthetized with thiopental (40 mg/kg, intraperitoneally) by intravenous injection of calcium chloride (250 mg/kg), adrenaline hydrochloride (220 μg/kg) or aconitine (40 μg/kg) in a volume of 1 mL/kg of animal weight. The studied compounds were administered intravenously 15min before (*prophylactic action*) and after the arrhythmia development (*therapeutic action*) in a dose 0.05 LD_{50}. Evaluation of the antiarrhythmic activity was made according to the time of occurring arrhythmias, their type and severity as well as the survival time of animals in control and studied group. Procainamide in a dose of 20 mg/kg was used as a reference preparation. The investigate compounds and reference preparation were administered 15 min before the arrhythmia modelling or during arrhythmia that had developed. Each experimental group had 6 experimental animals. EEG was registered in the II standard lead on the apparatus EEGP–02.

Results. The analysis of the obtained results on the calcium, adrenaline, and aconitine induced models of arrhythmias showed that some of 7-ethyl-3-methyl-8-tioxanthin derivatives have antiarrhythmic properties. The most prominent antiarrhythmic activity was demonstrated by 8-n-butylthio-7-ethyl-3-methylxanthin (compound 2) that has n-butylthiol radical at the eighnts position of xanthine bicycle. In a conditional therapeutic dose of 13.5 mg/kg compound 2 decreased the incidence of calcium chloride, adrenaline and aconitine evoked arrhythmias by 71.4 %, 714 % and 50% respectively

Conclusions. Based on the *in vivo* experiments, it seems that 8-n-butylthio-7-ethyl-3-methylxanthin is the most promising compound, which demonstrated antiarrhythmic and cardioprotective activity (calcium, adrenaline, and aconitine induced models of arrhythmia. As a non-toxic compound with antiarrhythmic properties and cardioprotective, 8-n-butylthio-7-ethyl-3-methylxanthin can be recommended for the further studies.

РОЗРОБКА ТА ВАЛІДАЦІЯ СПЕКТРОФОТОМЕТРИЧНОЇ МЕТОДИКИ КІЛЬКІСНОГО ВИЗНАЧЕННЯ ГЛІКЛАЗИДУ В ЛІКАРСЬКОМУ ПРЕПАРАТІ «ДІАГЛІЗИД» ФАРМАК

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На сьогодні для лікування і профілактики цукрового діабету другого типу широко використовують гіпоглікемічні препарати. Одним із представників похідних сульфонілсечовини є гліклазид. Для ефективного і безпечного застосування яких виникає необхідність вдосконалення існуючих і розробки нових методів аналізу.

Метою нашої роботи стала розробка та валідація методу кількісного визначення гліклазиду в лікарському препараті «Діаглізид» за допомогою сульфофталеїнових барвників методом спектрофотометрії.