гомогената миокарда SHR-крыс, получавших Гипертрил, наблюдалось увеличение содержания восстановленных интермедиатов (цистеин, глутатион, метионин) тиол-дисульфидной системы, которая, по всей видимости, играет особую роль в развитии механизмов цитотоксичности NO и повреждении органов-мишеней. Метопролол не оказывал заметного влияния на показатели системы NO. Таким образом, у Гипертрила выявлено NO-модулирующее действие, отсутствующее у метопролола, значительно усиливающее его защитное действие на миокард при артериальной гипертензии.

STUDY OF EXPRESSION SALMONELLAEFFECTOR PROTEINS ANDTRANSCRIPTION ACTIVITY OF GENES BY RT-PCR

Bukina Y.V., Kamyshny A.M., Polishchuk N.N., Topol I.A.
Scientific adviser: professorA.M. Kamyshny
Zaporozhye State Medical University
Department of Microbiology, Virology and Immunology

At present, of particular interest is the study of the molecular mechanisms of interaction of salmonella with host cells. The aim.To study the changes in expression of effector proteins of Salmonella SipA, SopB, SopE2 and the transcription activity of the FFAR2, Foxp3, RORγt genes in rats GALT against the background of vancomycin and B. fragilis. Materials and methods.All rats were divided into 4 groups:I-Vancomycin+S.enteritidis; II-Vancomycin+S.typhimurium; III-Vancomycin+S.enteritidis+B.fragilis; IV-Vancomycin+S.typhimurium+B.fragilis.Determined the level of expression of the studied genes rat Foxp3, Rorc(Royt), FFAR2 and effector proteins of Salmonella SipA, SopBand SopE2 by RT-PCR. Results.The level of expression of effector proteins of Salmonella increased after administration of vancomycin Group I and II: SopB- 101 and 20 times; SopE2 - 2 and 80 times; SipA - 613 times (II group), and also noted a decrease in 5 times in the I group. Relative normalized number in groups III and IV mRNA gene FFAR2, Foxp3, RORγtGALT in rats increased: FFAR2 - 2.7 and 5.4 times; Foxp3 - 2.5 and 85 times,RORγtlevel decreased by 70% and only in IV group. Conclusions.Pretreatment of animals with vancomycin causes increased transcriptional activity of effector proteins SipA, SopB and SopE2, except SipA after introductions S.enteritidis. The introduction of B.fragilis increases the mRNA level of the FFAR2 and Foxp3 genes in GALT, and also reduces RORγt after administration of S.typhimurium.

ANTIARRHYTHMIC ACTIVITY OF SOME 8-SUBSTITUTED OF 7-β-HYDROXYPROPYL XANTHINES

Dileep R., Kalyan G.V.S., Chidambaran V.S.
Scientific Supervisor: Associate Professor Samura I.B.
Zaporizhzhya State Medical University
Pharmacology and Medical Formulation Department

Development of new effective and devoid of side effects antiarrhythmic drugs (AADs) remains actual problem of modern pharmacology. Available AADs do not always demonstrate curative effect. Besides, their adverse effects, including arrhythmogenic properties and inhibition of inotropic myocardial function, demonstrate by the fall in arterial pressure and tissue hypoperfusion, decrease their therapeutical value. Xanthines of natural and synthetic origin are of biological and pharmacological interest. In dependence on the kind and place of substitution in one of the xanthine rings, a large variety of pharmacological activities were reported. The purpose of this research was to investigate the antiarrhythmic properties and effect on circulatory system (protection against adrenaline-, aconitine- and calcium chloride-induced arrhythmias) of the brand-new synthesized 8-substituted 7-β-hydroxy-□-(2□-methylphenyloxy) propylxanthines. The most prominent antiarrhythmic activity was demonstrated by 7-β-hydroxy-□-(2□-methylphenyloxy) propyl-8-aminoxanthine (V) that in a conditionally therapeutic dose of 59.8 mg/kg had decreased the incidence of adrenaline- and calcium-induced model of arrhythmia compound (55.7%), shortened extrasystoles (37%), efficiently prevented bigeminy (70%, $p < 0.01$) and diminished (42.8%, $p < 0.05$) mortality of animals. In strophanthin-induced model of arrhythmia compound V delayed extrasystoles (37%), efficiently prevented bigeminy and ventricular fibrillation (77.8%, $p < 0.01$) and diminished (33.3%, $p < 0.05$) mortality of animals. All investigated compounds decreased heart rate by 10 to 18%, prolonged P-Q section, QRS complex and Q-T interval. The most potent and significant negative chronotropic effect and markedly prolonged duration of