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Introduction. Bacterial resistance to antibiotics is a complex phenomenon that defines the ability of microorganisms to survive and multiply in the presence of an antibiotic. This natural process for bacteria threatens to reach an unprecedented extent.
Aim of the study. To evaluate the incidence of pathogenic flora in hospital conditions and the degree of microbial resistance in hospitalized patients.
Materials and methods. The retrospective study carried out within the "Sfînta Treime" Municipal Clinical Hospital comprises a group of 30 patients hospitalized in Therapy II. The study included medical records of patients hospitalized between April and July 2017, aged between 30 and 70 years. The antibioticograms and the treatment of these patients have been studied and interpreted.
Results. The study showed a prevalence of bacterial culture of Streptococcus viridans representing 30% cases, followed by Streptococcus beta haemolyticus and Staphylococcus aureus in 20%, Staphylococcus haemolyticus - 13.33%, E. Coli - 6, 66%. Moxarella catarhalis, Streptococcus pyogenes and Klebsiella oxytoca in a proportion of 3.33% are less significant. The isolated microorganisms from patients in Therapy II section showed increased resistance to antibiotics in the penicillin group - 73.33%, the macrolide group - 36.66%, the glycopoid group - 26.66%, and the cephalosporins group - 16.66 %. Less bacterial resistance is for quinolone groups -10.00%, fenicols - 6.66%, oxozolidones, aminoglycosides and penicillins + beta-lactamase inhibitors in equal proportions of 3.33%.
Conclusions. The study of antibiotic resistant pathogenic flora from patients in Therapy II section showed a prevalence of bacterial culture of Streptococcus viridans, followed by Streptococcus beta haemolyticus and Staphylococcus aureus. Microorganisms isolated from these patients showed increased resistance to antibiotics in the penicillin groups, followed by macrolides, glycopeptides and cephalosporins.
Key words: resistance, antibiotics, microorganisms, antimicrobial

234. ISOTHIOUREA DERIVATIVES - THE NEW GENERATION OF ANTIHYPERTENSIVE DRUGS

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Introduction. One of the major concerns of modern medicine is the use of new, long-acting antihypertensive drugs. Numerous studies have confirmed the importance of correct treatment of hypertension to reduce cardiovascular morbidity and mortality. Physicians now have a choice of a wide range of antihypertensive drugs with numerous evidence of their efficacy, but which often cause side effects limiting their widespread use. Benzituron or S-benzylisothiourea chloride is referred to a new range of hypotensive substances, isothiourea derivatives, able to reduce and to stabilize the level of the arterial blood pressure. The solution of the benzituron, in dosage of 2 mg/kg shows a noticeable hypotensive and antihypertensive action, with duration from 4 to 5 hours.
Aim of the study. To evaluate the effect of benzituron on blood pressure and heart rate on the background of adrenergic receptor blockade with propranolol.

Materials and methods. The experiments were performed on 14 cats 2-4 kg body weight anesthetized with 30% urethane solution (500 mg/kg) and chloralose (50 mg/kg) administered intraperitoneally, followed by blood pressure and heart rate monitoring at different intervals of time.
Results. The 0.2 mg/kg propranolol solution was administered intravenously with effect assessment at 2 and 5 minutes, followed by 5 minutes intravenous administration of isoprenaline solution 0.005 mg/kg, then 2 mg/kg benzituron dissolved in 1,5 ml physiological saline solution with effect recording at certain time intervals. Isoprenaline was injected to demonstrate β-adrenoceptor blockade by propranolol. Subsequent intravenous injection of benzituron resulted in a decrease in blood pressure at the 60th minute.
Conclusions. Benzituron in the dose of 2 mg/kg exerts hypotensive effect on the background of blockade of β-adrenoreceptors.
Key words. Benzyturon, blood pressure, heart rate

235. OBTAINING AND BIOLOGICAL EVALUATION OF α -TOCOPHEROL ESTER TYPE PRODUCTS

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Introduction. More and more scientific evidence criticizes free radicals for the occurrence of numerous and serious conditions such as liver cirrhosis, atherosclerosis, various types of cancers, diabetes etc. For this reason, the role of antioxidants, in defending the body from damage caused by different types of radicals, is crucial. Although molecular oxygen plays a particularly important role in sustaining life on this planet through its involvement in many physiological processes (photosynthesis, aerobic respiration), it is also toxic, especially when converted to the superoxide (O2-), anion included into the group of reactive oxygen species. Thus, in this context, the development of new antioxidant compounds capable of neutralizing reactive oxygen species, is essential.
Aim of the study. The present study aims to evaluate the antioxidant action of some derivatives obtained by esterification of aryl-propionic acids with α-tocopherol.
Materials and methods. The ester-type prodrugs of tocopherol were obtained by reacting it with derivatives of the aryl-propionic acid class (ibuprofen and ketoprofen) in absolute ethyl alcohol medium. The resulting compounds (TOC-IBF and TOC-KTF) were physically and chemically characterized and their structure was confirmed by IR spectroscopy. Antioxidant potential was assessed by two spectrophotometric methods: total antioxidant capacity and reducing power.
Results. Following optimization of the synthesis method, the compounds were obtained in good yields. IR spectra, recorded in the range of 500-4000 cm-1, revealed the group vibrations characteristic of the structural elements specific to each compound: the ester group, the aromatic ring and the basic structure of the tocopherol. The structural modulation of the aryl-propionic acids has positively influenced the antioxidant properties, the action of the synthesized compounds being comparable to that of tocopherol.
Conclusions. The results obtained in this study support the antioxidant potential of synthesized compounds and their applications in various diseases mediated by reactive oxygen species (ROS).
Key words: α -tocopherol ester, prodrugs, antioxidant action

236. USE OF PROFETUR IN ACUTE ARTERIAL HYPOTENSION CAUSED BY ACE INHIBITORS