357. THE STUDY AND SELECTION OF EXCIPIENTS FOR FORMULATION OF ANTIMYCOBACTERIAL CAPSULES WITH PROPILTIODIAZOLOCHINAZOLIN ONE

Ecaterina Bilici, Oxana Vislouh, Andrei Uncu

Scientific adviser: Uncu Livia, PhD, Associate Professor; Ciobanu Nicolae, PhD, Associate Professor, Faculty of Pharmacy, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction: Tuberculosis is a bacterial infection, endemic and contagious disease, caused by Mycobacterium tuberculosis, which affects, according to statistics of the World Health Organization year 2014, 9.6 million of population, including new cases of illness 6 million and 480 thousands multidrug-resistant TB. The studies of TB drugs in our country and from the world, have demonstrate that the efficiency of treatment is increasingly smaller. So, our goal is the formulation of capsules with propiltiodiazolochinazolin-one, a new original compound antimycobacterial.

Materials and methods: We studed the bibliographic advanced nomenclature of excipients used most often in solid formulations with antimycobacterial therapeutic effect, depending on the structure of active substances and physico-chemical properties. We selected the following auxiliary substances: anhydrous lactose, lactose monohydrate, magnesium stearate, microcrystalline cellulose, polyvinylpyrrolidone, sodium starch gluconate, polyethyleneglycol 4000, 6000.

Results and discussion: Propiltiodiazolochinazolin-one is a microcrystalline substance, insoluble in water, which allow us to choose excipients which can be used in gels, to obtain granules and excipients with a certain concentration of water, to obtain powders. In the base of the list of selected excipients, were elaborate six formulation of capsules, for which subsequently will be determinated the physico-chemical and technology properties of powders and granulates.

Conclusion: The selected excipients, according to the physico-chemical characteristics, the structure and the therapeutic effects of the active substance, allow the formulation of the antimycobacterial capsules with propiltiodiazolochinazolin-one.

358. NMR ANALYSIS OF PHENOXYTHIAZOLECHLORALUM

Victor Curac, Ana Podgornii

Scientific adviser: Vladimir Valica, PhD, Professor, Chair of pharmaceutical and toxicological chemistry, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. Nuclear magnetic resonance (NMR) is an analysis method for studying the magnetic properties of atomic nucleus and provides information about the number, type and spatial position of the nucleus in the molecule. Together with infrared spectrophotometry (IR), the NMR is a safe tool in establishing the chemical structure of unknown substances in organic synthesis, drug

designing, biochemical process description, analysis of metabolites, the chemical and pharmaceutical analysis.

Objective of the study. To determine the chemical structure and the spatial conformation of phenoxythiazolechloralum for designing an antimycobacterial drug.

Materials and methods. Bruker NMR spectrometer; electronic balance (Ohaus), phenoxythiazolechloralum.

Results and discussion. In this research, the NMR spectra were obtained in relation to internal reference standard of tetramethylsilane (TMS). The study of protonic NMR spectrum (1H1) provides information about the chemical shifts of each type of proton and functional groups, which indicates the presence of CH bonds in the benzene ring (2-4), the aromatic chlorine (1-6) and the alcoholic hydroxyl group (3 -4). The NMR carbonic spectrum (13C6) demonstrates the spatial position of the functional groups that contain carbon, namely aliphatic CH links (25-40), CH in benzene ring (125-145), C = N (117) C = O (194). These results allow to present the chemical formula of phenoxythiazolechloralum.

Conclusions: According to this study was determined the chemical structure and spatial conformation of phenoxythiazolechloralum, a drug with antimycobacterial real potential. Key words: NMR spectroscopy, phenoxythiazolechloralum, antimycobacterial.

359. COMPARATIVE STUDY OF THE ANTIDEPRESSANT ACTIVITY OF THE EXTRACTS AND BIOLOGICALLY ACTIVE SUBSTANCES OF ELEUTHEROCOCCUS SENTICOSUS

A.Y. Alekseeva, A.A. Bazitova, E.N. Zaitceva

Scientific advisors: PhD in Medicine, Associate Professor; E.N. Zaitceva; D.Sc. in Pharmacology, Full Professor; V.A. Kurkin, Samara State Medical University, Samara, Russia

Introduction: The problem of stress has theoretical and practical significance.The stimulation of the immune system and of the adaptive capacity of the organism can be achieved by physical training or introducing into the organism adaptogens. The most important natural adaptogens are the following plants: Panax Ginseng, Eleutherococcus senticosus, Rhodiola rosea, etc. We have researched Eleutherococcus senticosus. The leading groups of biologically active substances (BAS)of Eleutherococcus are phenylpropanoids: eleutheroside B (syringin), eleutheroside D and coumarin (eleutheroside B1), sterol glycoside, carbohydrates, polysaccharides, essential oils, resins and other substances.

Materials and methods: The experimens are performed on white outbred rats of both sexes weighing 200-220 g at the Department of Pharmacology of SamSMU. Four groups of experimental animals were formed. We introduced the following substances liquid extract of the Eleutherococcus senticosus in dose of 150 mkl/kg, the active substances Eleutherococcus senticosus - syringin and eleutheroside B1 in dose of 10 mg/kg and the comparison drug Amitriptyline in dose of 5 mg/kg. All drugs were administered intragastric probe for rats on the background of 1% water load. Control animals received only water load. After a single dose administration of the drug after 2 h was examined