

26. REASONABLENESS OF DEVELOPING A NEW ANTIFUNGAL PRODUCT IN THE FORM OF EAR DROPS ANTINEOPLASTIC AGENTS, AVAILABLE ON PHARMACEUTICAL MARKET OF THE REPUBLIC OF MOLDOVA

Voloşin Anastasia, Suvorchina Olga

Scientific adviser: **Uncu Livia**, Ph.D., Associate professor, Department of Pharmaceutical and Toxicological chemistry, State Medical and Pharmaceutical University "Nicolae Testemitanu", Chişinău, Republic of Moldova

Introduction: There has been an increase in the prevalence of otomycosis in recent years. The most recommended and dominate treatment of otomycosis, is topical instillation of ear drops. Ear drops provide the advantages of combination therapy, extending the range of therapeutic options. Considering poly-etiology of this disease (the possible presence of fungal bacterial flora), treatment should include antimicrobial, antifungal, antiinflammatory, and if necessary, an analgesic effect that is achieved by the use of combined ear drops.

Purpose and objectives: analyze the available pharmaceutical products used for treatment of otomycosis. The rational application of these medications makes it possible to eliminate rapidly a variety of etiological factors, reduce the severity of inflammation, and to improve the quality of patient's life.

Materials and methods: For research it was used State Nomenclature of drugs of Republic of Moldova (01.03.2014); Nomenclature of drugs of Romania (01.03.2014); State Register of drugs of Russia (01.03.2014); Formulation of European Medical Agency (01.03.2014); Formulation of USA (FDA Drugs) (20.02.2014); Great Britain Formulation (01.02.2014); instructions for use of drugs; Standards of quality of analytical documents and therapeutic protocols in otorhinolaryngology (section "ear diseases").

Results: Combined eardrops were analyzed in terms of their presence in the pharmaceutical market of RM in comparing with Russia, EU countries, USA and Canada. Nomenclatures of drugs from 7 countries (Moldova, Romania, Russia, Britain, France, USA and Canada) were examined. The results indicate that most frequently used 43 names of combined ear drops produced by 38 companies from 15 countries. Of these 38 companies only 2 produce combined ear drops which contains antifungal component. The pharmaceutical market in RM has 13 names of ear drops. The most products (58.3%) are combinations of antimicrobial ν , corticosteroids, anti-inflammatory, anesthetic and antiseptic medicines. Unfortunately, there are not registered combined ear drops that contain antifungal component.

Conclusions: In conclusion it is important to develop a new composition of ear drops, containing antibacterial and antifungal components.

Keywords: otomycosis, combined ear drops, antifungal medicines.

27. CONTEMPORARY PRINCIPLES OF PHARMACOTHERAPY URTICARIA

Ciubara Olesea

Academic adviser: **Scutari Corina**, M.D., Ph.D., Associate professor, State Medical and Pharmaceutical University "Nicolae Testemitanu", Republic of Moldova

Introduction: Chronic urticaria represents 25% of cases of urticaria, and is twice as common in women, especially in people between the ages of 25 and 50 years. Resulting from incidence of this disease in Republic of Moldova, it is required to effectuate a clinical study with the elucidation of the etiology, symptomatology and pharmacotherapy of patients with urticaria.

Materials and methods: The trial was conducted at Republican Clinical Hospital I.M.P.S, Department of Allergology. Working methodology consisted in the creation and registration of 97 cases of urticaria and angioedema hospitalizations in 2013 year in Allergology Department.

Results and discussions: In the Department of Allergology, 97 patients were admitted with the diagnosis of urticaria and angioedema, including 53 women and 44 men. Regarding the employment status, 68 patients were employed in different sectors, three students of 12th class, 6 don't work, and 10 were retired by age and had the degree of disability. It is found that in 37.1% of cases, patients are

diagnosed with chronic urticaria with mixed forms of angioedema; in 36.08% of cases patients are diagnosed with chronic relapsing urticaria; in 11.3% of cases, patients are diagnosed with angioedema, and in 5.15% of cases are hospitalized with acute urticaria. The etiology, recognized or presumed, is: the drug (62%), food (22%), and infections (16%). Proceeding from studies I found that the frequency of clinical symptoms (complaints) presented by patients may be distributed as follows: 54% of cases presented maculopapular rash all over the body, sometimes confluent, accompanied by intense itching; 26% of cases accuse marked asthenia, maculopapular, erythematous rash, mainly on the chest, abdomen, upper limbs and in 11% of cases - weakness, 37.50 °C fever. The most common concomitant diseases in patients with urticaria and angioedema are: chronic cholecystitis in flare (45%), chronic pancreatitis (25%), vegetative disorders (27%), chronic gastritis in flare (*H. pylori*) (15%), anxious-depressive neurosis (15%), hepatic steatosis (13%), chronic hepatitis (12%). From the analysis based on the patients treatment records of Allergology Department we can conclude that glucocorticoids are first-line drugs in antiallergic treatment of acute urticaria and angioedema (76%). Prescribing rate of Dexamethasone solution 8 and 4 mg constituting 84% and Betamethasone Solution (Diprophos) 1.0 ml constituting 16%. In this study, I found that antihistamines of 1st generation as chloropyramine is prescribed in 88% of cases, less frequently is prescribed Levocetirizine in tablets (Xilaz) - third-generation antihistamine (22%) and in 8% of cases Cetirizine tablets - second generation antihistamine and tablets Bilastine.

Conclusion: The therapeutic results are often modest. About 40% of cases that have evolved over six months are present during 10 years and 20% are found even after 20 years from the onset

Keywords: Urticaria, angioneurotic edema, glucocorticoids

28. BIOLOGICAL METHODS OF ANALYSIS IN QUALITY CONTROL OF MEDICINES

Colațchi Olga, Mazur Ecaterina

Academic adviser: **Uncu Livia**, Ph.D., Associate Professor, Department of Pharmaceutical and Toxicological Chemistry, Chisinau, Republic of Moldova

Introduction: In addition to chemical and physicochemical methods in pharmaceutical analysis the biological methods is used as well. Biological evaluation of drugs happens usually by evaluation of both intensity biological effect (pharmacological) and of its toxicity. Biological methods are used, when the conclusion about the purity or toxicity of the pharmaceutical product can't be made by using physical, chemical or physicochemical methods, or when the method of obtaining of the drug can't guaranty the stability of its activity (ex: antibiotics). Biological analysis is the method of identifying drug substances and assay, based on the use of living organisms as analytical indicators. These organisms will populate environments chemically strictly determined. Biological methods of analysis permit determination of specific properties of the medicines. Biological methods consist in the comparing the specific characteristics of the standard and analyte in the determination of the analytical signal and the amount of studied parameter. Animals, such as cats, dogs, birds, toads etc. are used in biological assays. Isolated organs (ex: skin), separated from the cell culture (the constituent elements of the blood), as well as cultures of microorganisms are also used in the quantitative analysis. Substance activity is expressed in units of action.

Materials and Methods: Analysis of pharmacopoeia's monographs of British, European, Romanian, Belorussian and Russian Pharmacopoeias.

Results: Biological methods exposed in pharmacopoeias are similar to the methodology and recommendations for the analysis of different substances. Quantitative determination obtained by biological method of insulin, antibiotics, heparin and cardiac glycosides is stipulated in all pharmacopoeias. European and Belarus Pharmacopoeias are more focused on the assay of the vaccines and coagulation factors. British Pharmacopoeia proposes quantitative determination of monoclonal antibodies.

Conclusion: Biological methods of analysis are recommended for antibiotics, insulin, cardiac glycosides, heparin, blood clotting factors, serums and vaccines. These methods are best suited to obtain adequate information about specific qualities of substances.

Keywords: Monograph, biological methods, assay, animals, microorganisms