

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



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Конференція внесена до Реєстру заходів безперервного професійного розвитку,
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caused by intramuscular injection of 50% glycerol solution (8 ml/kg), group III – administration of melatonin (Sigma-Aldrich, USA) at a dose of 5 mg/kg 1 h and 24 h after glycerol administration. Animals were withdrawn from the experiment 24 h later, while blood, urine and the kidneys were sampled for biochemical and histopathological assessments. Statistical processing of the obtained data was performed using the SPSS Statistics 17.0 software.

Results. Rhabdomyolysis-induced AKI was characterized by significant oliguria and decrease in GFR, retention azotemia and hyperkalemia, proteinuria, and decrease in urine pH. Severe tubular injury was confirmed by a marked increase in gamma glutamyl transpeptidase (γ -GTP) level in urine and increased fractional excretion of sodium. It was found that co-administration of melatonin significantly ameliorated kidney function in rats with AKI. Cytoprotective effect on the proximal renal tubules was verified by decrease in γ -GTP level, increase in diuresis and GFR, with subsequent reduction of retention azotemia, decrease in plasma potassium level, reduction of proteinuria, and decrease in fractional sodium excretion. Renoprotective effect of melatonin may be partially attributed to its potent antioxidant effect, verified by a significant reduction in renal MDA and OMP content along with an increase in GPx activity comparing to untreated animals, as well as an ability to maintain cellular energy balance by preservation of SDH activity in kidney tissue. Histological examination confirmed renoprotective effect of melatonin. Treatment with melatonin limited the degree and prevalence of histopathological changes in the kidneys, with significant reduction of necrosis, degeneration and myoglobin casts.

Conclusions. The obtained data on the effectiveness of melatonin under the conditions of rhabdomyolysis-induced AKI indicate its potent renoprotective activity resulting from the influence on the key links of pathogenesis. The results of the research confirm the prospects for further experimental study of melatonin in conditions of various renal pathologies.

Sydor V.V.

PHARMACOECONOMIC ANALYSIS OF THE USE OF GENERIC ANTIHISTAMIN DRUGS CONTAINING LEVOCETIRIZINE

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Introduction. To date, more than 20,000 allergens are known, the number of which continues to grow. One of the most popular antihistamine drugs, in terms of use in patients with allergies, are those containing levocetirizine .

The aim of the work. Optimization of allergy pharmacotherapy by conducting a pharmacoeconomic analysis of the use of antihistamine drugs containing levocetirizine .

Materials and methods. Pharmacoeconomic research methods are applied - "minimization of costs", which is intended for the selection of a drug or treatment method with minimal costs, and "cost-effectiveness", which allows you to conduct a cost-effectiveness assessment and estimate the cost per unit of effectiveness of the treatment method. 74 schemes of pharmacotherapy of patients with allergies were analyzed. Three groups of patients were identified: the first group (24 patients) received L-cet tab. 5 mg ("KUSUM HEALTHCARE PVT LTD", India), the second (25 patients) - Allerzin tab. 5 mg ("EGIS", Hungary), the third (25 patients) - Aleron tab. 5 mg (Teva, India) in therapeutic doses.

Results. The cost-effectiveness pharmacoeconomic analysis method established that the clinical effectiveness for the scheme of pharmacotherapy with antihistamine drugs containing levocetirizine for L-cet (5 mg/day for 1 dose), Allerzin (600 mg/day for 1 dose) and Aleron (5 mg/day for 1 dose) was 0.05, 0.1, 0.07, respectively. This indicates the lowest efficiency of L-cet. According to the "minimization of costs" method, it was determined that the most expensive is allergy pharmacotherapy with the drug Alerzin 5 mg. Its cost is 101.40 UAH, the cost of treatment with L-cet 5 mg was 55.70 UAH, and the least expensive was treatment with the drug Aleron 5 mg - 48, 80 UAH.

Conclusions. As a result of the research, it was established that the most effective allergy pharmacotherapy scheme was the one that included Allerzin 5 mg, and the least expensive in terms of course dose was the scheme containing Aleron 5 mg.

Velia M.I.

RESEARCH OF THE CHOICE OF THE BASIS OF A SEMI-SOLID MEDICINE WITH A SEMI-SOLID EXTRACT OF FEVERFEW (TANACETUM PARTHENIUM)

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Introduction. In recent years, a number of scientific works by Ukrainian scientists have been devoted to the study of the chemical composition and pharmacological activity of insufficiently studied medicinal plants. At the Department of Botany of National University of Pharmacy (NUPh), under the leadership of Prof. Gontova T.M., a semi-solid extract of feverfew (SSFE) of the Asteraceae family was obtained. A high content of phenolic substances in the classes of hydroxycinnamic acids, and sesquiterpene lactones and flavonoids was found. This spectrum of biologically active substances provides pronounced anti-inflammatory, antibacterial and analgesic effects, which was confirmed by pharmacological studies. In this regard, the creation of a new pharmaceutical drug of local action on the basis of SSFE is certainly promising. The leading place in the treatment of skin lesions is given to the means for external application in form of semisolid medicines (SSM). Thus, the aim of the research was to choose a carrier base to create a drug in the form of a semisolid dosage form (SSDF) with a semisolid extract of feverfew.

The aim of the study. To conduct the research on the choice of the basis for a mild drug with a semisolid extract of feverfew for use in dermatology.

Materials and methods. In the study of the solubility of a semisolid extract of feverfew (SSFE) the method of optical microscopy using a laboratory microscope "Konus Academy" was applied. Determination of pH and homogeneity of the studied samples was performed according to the methods described in SPhU, Vol.1. The bioavailability of the model samples was investigated by diffusion in 3 % agar gel. Colloidal stability and thermal stability were determined according to the methods of GOST 29188.3-91. Measurements of rheological parameters were performed on a rotary viscometer "MYR 3000 V 2R" (Viskotech, Spain). Determination of particle distribution was performed using a laser diffraction analyzer of particle size Mastersizer 3000.

Results. The best results in determining the organoleptic properties, stability and degree of release of biologically active substances (BAS) showed the samples prepared on emulgel and gel bases. Structural and mechanical parameters of the samples on these bases proved the presence of a non-Newtonian type of flow with plastic and thixotropic properties. When determining the distribution of SSFE particles by optical diffraction, their smaller size was determined in the sample on an emulgel basis in comparison with the gel.

Conclusions. Emulgel loaded with specific drugs has been found effective in some topical disorders, and it is emerging as potential drug delivery system in the area of dermatology. Since emulgel shows enhanced spreadability, adhesion, viscosity and extrusion. Based on the obtained results, an emulsion gel base was chosen as a carrier for a semisolid drug with SSFE.

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ANTIHYPOXIC ACTIVITY OF THE DERIVATIVE OF 2-BENZAMIDO-2-(2-OXOINDOLIN-3-ILIDEN) ACETIC ACID UNDER THE CONDITIONS OF ACUTE HYPOBARIC HYPOXIA

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Introduction. Hypoxia is a pathological condition that occurs when there is an insufficient supply of oxygen to tissues or disorder of oxygen uptake during the process of oxidation. It occurs under the conditions of oxygen deficiency in the environment, and as a result of various pathological processes and diseases associated with disorders of the respiratory and cardiovascular