МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

М А Т Е Р І А Л И

106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
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Матеріали підсумкової 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) – Чернівці: Медуніверситет, 2025. – 450 с. іл.

У збірнику представлені матеріали 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) зі стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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and Romania - 8.6% and 7.1%, respectively. A small number of drugs manufactured by pharmaceutical enterprises of other countries in the ratio of 4.3%, 2.9%, and less. Research of the pharmaceutical market in terms of the contribution of different dosage forms of release showed that diclofenac drugs are presented in 8 different dosage forms, among which the largest share is the dosage form - gel (30.5%), relatively large shares are occupied by enteric tablets (24 .8%), solutions for injections (17.1%) and rectal suppositories (10.5%). Other dosage forms are presented in lower percentage ratios.

Conclusions. Given the wide range of use of sodium diclofenac in medical practice, it can be considered that it belongs to the drugs of the first line of pathogenetic therapy for rheumatic diseases. The results of a comprehensive marketing analysis of the assortment of the domestic market indicate a significant share of drugs with the active ingredient diclofenac sodium among other medicinal NSAIDs, with a variety of dosage forms. However, when prescribing drugs, it is also important to evaluate the effectiveness/safety and price/quality ratio, which is important for the patient.

Filipets N.D.

ASSESSMENT OF THE ROLE OF ATP-DEPENDENT POTASSIUM CHANNELS IN MECHANISMS OF ACID-BASE BALANCE

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Introduction. Disruption of homeostasis in hypoxia is followed by dysfunction of the systems and organs that regulate the acid-base state. The multifaceted mechanisms of the pH control system indicate that maintaining interstitial and intracellular pH within a narrow range is of primary physiological importance. Scientific evidence indicates that many acid-sensitive ion channels and receptors play a role in the acid-sensitivity of the body's responses, acid-induced pain, and acid-induced regulation of homeostatic responses. Healthy kidneys correctly coordinate several physiological reactions in conditions of acute and chronic disturbances of the acid-alkaline balance. However, damaged kidneys have a reduced ability to adapt to such problems. Not only secretion and maintenance of electrolyte balance, but potassium ion channels also regulate cell volume; they are integral to cellular functions in all tubular cells due to their key role in generating the cell's negative electrical potential, which affects the transmembrane movement of many essential solutes. In this work, we investigate the main changes in renal responses to maintaining acid-base balance and show how they are interrelated with activating ATP-sensitive potassium channels.

The aim of the study was to study the indexes of renal acid regulation in acute hypoxia under the influence of adenosine triphosphate-sensitive potassium channels activator flocalin.

Material and methods. For this purpose, flocalin was administered intraventricularly to the non-linear white rats in the dose of 5 mg/kg under the conditions of acute hypoxia after subcutaneous injection of sodium nitrite at a dose of 50 mg/kg and intraperitoneal injection of 2,4-dinitrophenol at a dose of 3 mg/kg. The combination of such exotoxicants causes the development of combined histological hypoxia with the development of toxic kidney damage. (Filipets N.D., Gozhenko A.I., 2014). After 2 hours, diuresis was recorded, and the pH of urine was measured using a microbioanalyzer "Redelkys" (Hungary), the content of titrated acids and ammonium salts in urine - by the titration method. Indicators that characterized the acid-regulatory function of the kidneys were standardized by body weight and glomerular filtration, which was determined by the clearance of endogenous creatinine.

Results. Under conditions of acute hypoxia, the mechanisms of kidney regulation of the acid-base state were restored under the influence of flocalin. A decrease in the ammonium coefficient almost to the control value, as well as the pH indicator, indicates the stabilization of acidogenesis and ammonia genesis. The natriuretic effect of flocalin, established by us in previous studies, prevents the tubular reabsorption of sodium ions in exchange for the secretion of hydrogen ions into the lumen of the nephron, and the concentration of hydrogen ions in urine decreases to the control level. This is reflected in the reduced dynamics of excretion rates of free hydrogen ions and

the composition of titrated acids per 100 μl of glomerular filtration. Urine, which contains few hydrogen ions, contributes to a significant decrease in ammonia excretion. The analysis of indicators after the activation of ATP-sensitive potassium channels confirms the ability of flocalin to affect the state of the acid-regulatory function of the kidneys, which we discovered earlier. It should be noted that the dynamics of changes had a heterogeneous trend, which is explained by the use of different methods of conducting experiments.

Conclusions. Based on the positive dynamics of pH and ammoniagenesis to acidogenesis ratio we have outlined the corrective properties of flocalin under hypoxic influence on the renal mechanisms of acid-base regulation and indicate the participation of channels of this type in the pathogenetic mechanisms of acute hypoxia. Acid-alkaline disorders lead to changes in renal functions and processes, as well as affect the mechanisms closely related to their energy supply. The study of the state of the main energy-dependent process – reabsorption of sodium ions for the development of new directions of pharmacological correction of nephrological pathology is promising in the study of the renal effects of the ATP-sensitive potassium channels activator flocalin under the conditions of the development of acute hypoxia.

Greshko Iu.I.

PHARMACOECONOMIC ANALYSIS OF THE USE OF FULVESTRANT COMPARED TO CHEMOTHERAPY FOR THE TREATMENT OF PATIENTS WITH LOCALLY ADVANCED OR METASTATIC ER (+) HER2 (–) BREAST CANCER

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Introduetion. In Ukraine, the use of fulvestrant, an estrogen receptor antagonist, is complicated by its high cost. Very often, when there are indications for its use, traditional chemotherapy regimens (HT) are used, most often the CMF regimen (cyclophosphamide + methotrexate + fluorouracil).

The aim of the study. This study was a pharmacoeconomic evaluation of the use of fulvestrant (500 mg 1 r/month) compared to the CMF chemotherapy regimen (cyclophosphamide 600 mg/m^2, methotrexate 40 mg/m^2, fluorouracil 600 mg/m^2) for the treatment of patients with locally progressive or metastatic ER (+) HER2 (–) breast cancer in postmenopausal women periods with relapse or progression of the disease after the use of the first line of hormonal therapy (anti-estrogens and aromatase inhibitors) and in the absence of a visceral crisis.

Material and methods. The studied regimens: fulvestrant (500 mg 1 time/month) compared to HT CMF (cyclophosphamide 600 mg/m^2, methotrexate 40 mg/m^2, fluorouracil 600 mg/m ^{2}).

The pharmacoeconomic method of "cost-effectiveness" analysis was used. The research horizon is 1 year. Only direct costs were taken into account, taking into account the discount factor of 3%: the cost of an annual course of treatment with the compared schemes; the cost of medical devices, with the help of which manipulations and administration of drugs are performed; the cost of treatment of adverse reactions (AR): febrile neutropenia (FN) of 3-4 degrees of severity, gastrointestinal PR of 3-4 degrees (diarrhea and vomiting), as well as the cost of patients staying in a hospital during the main therapy and treatment of PR. Indirect costs were not considered, as all patients were considered to be of retirement age and GDP losses were insignificant. Prices for pharmaceuticals and medical products are used by the data of current registers of wholesale and retail prices. The cost of staying in a hospital is determined according to the official website of the private clinic "Boris". The expenses of PR therapy and patient management in the event of their occurrence were calculated considering their frequency, which was determined according to literature data.

The incremental cost-effectiveness index (ICER) when using fulvestrant compared to CMF CT was calculated using the formula: total treatment costs (fulvestrant) - total treatment costs (CMF) /clinical effectiveness (fulvestrant) - clinical effectiveness (CMF). The indicator of overall survival (OS) was used as an indicator of the clinical effectiveness of the studied schemes.