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Dudka Y.A.
INFLUENCE OF THE PINEAL HORMONE
ON THE FUNCTIONAL STATE OF THE KIDNEY

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A toxic effect of cisplatin, which is widely used in oncology, negatively affects the functions of various organs, including the kidneys. All this dictates the need to study nephroprotectors more and more. One of the leading substances is the hormone of the pineal gland - melatonin.

The aim of the study was to establish the nephroprotective potential of melatonin under conditions of the cisplatin model of acute kidney injury (AKI). The studies were carried out on 24 rats; total PL and PL fractions were determined by thin layer chromatography. Two hepatotrophic xenobiotics were used: carbon tetrachloride and the alkaloid heliotrin. Intoxication with carbon tetrachloride in rats was carried out by inhalation in the dose of 0.3–0.4 ml per 100 g of animal weight for 21 days; and heliotrin was injected subcutaneously, the control group consisted of rats receiving saline. As antioxidants, membrane stabilizers, the tested medicinal preparations (vitamin E, sodium selenite, liposome, LESE-complex of preparations containing liposomes, vitamin E and sodium selenite) were administered on 70–90 days from the beginning of the experiment.

The study of the content of total and individual PL during intoxication with carbon tetrachloride showed a decrease in the level of PC (phosphatidylcholine) by 1.6 times, PE (phosphatidylethanolamine) by 1.5 times, an increase in LPC (lysophatidylcholine) by 3 times, a decrease in total FL by 3 times. With the introduction of heliotrin, the same tendency towards a decrease in the amount of total and neutrophilic PL was observed. In rat liver on the 70th and 90th days of the study, the PL content increased under the influence of vitamin E by 38% and 41%; sodium selenite 10.5% and 21.8%; liposomes - 20% and 35.6%, and LESE - 45% and 49.2%, respectively, compared with the control group. The study of the content of neutrophilic fractions of PL 1.2–2.3 times increased.

The LESE complex showed a more pronounced effect on the content of total and neutrophilic PL in comparison with other drugs. The drugs used have a membrane stabilizing, antioxidant effect, and in combination, they enhance the effect of other components, which is a reflection of the restoration of the membrane structure.

Kyslytsia S.O.

CONSERVATIVE METHODS OF TREATMENT OF ACUTE RHINOSINUSITIS

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Rhinosinusitis is inflammation of the mucous membrane of the nose and sinuses. The problem of other inflammatory diseases of the upper respiratory tract, acute rhinosinusitis, in particular, is quite relevant in clinical practice. In recent years, there has been an increase in the incidence of diseases of the nose and paranasal sinuses, which leads to an increase in the number of outpatient visits by family physicians and otorhinolaryngologists.

Objective of the study was to investigate the reasonability and effectiveness of the use of antibacterial agents in patients diagnosed with "moderate acute rhinosinusitis", as well as to confirm or deny the need for treatment based on evidence-based medicine. For the study, patients were selected who were diagnosed on the basis of complaints, medical history, physical examination and laboratory tests with moderate-severe acute rhinosinusitis, and duration of the disease 1 - 3 days. The age of patients was 18 - 40 years.

A total of 30 people took part in the study. To perform the planned study, patients were divided into 3 groups: 1. Patients who received phytopreparation as a part of treatment; 2. Patients who received inhaled glucocorticoid as a part of treatment; 3. Patients who took antibacterial drug as a part of treatment. In the first group of patients, improvement occurred from 4 to 5 days, and recovery from 7 to 8 days from the beginning of treatment. In the second group of patients, improvement occurred from 3 to 4 days, and recovery from 6 to 7 days from the beginning of treatment. In the third group of patients, improvement occurred from 5 to 6 days, and recovery from 8 to 9 days from the beginning of treatment.

Therefore, the results of our work showed the need for antibacterial drugs in acute rhinosinusitis of moderate severity is not appropriate, as indicated in the Order of the Ministry of Health of Ukraine from 11.02.2016 85. Uncontrolled use of antibiotics or in the absence of indications antibiotic resistance increases. Treatment should be carried out in accordance with the current orders of the Ministry of Health of Ukraine, as well as based on evidence-based medicine.

Povar . .

FEATURES OF THE REACTION OF SYSTEMIC INDICATORS OF PROOXIDATIVE-ANTIOXIDANT HOMEOSTASIS TO CEREBRAL ISCHEMIA-REPERFUSION IN RATS WITH DIABETES MELLITUS

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Objective of the work was to study the indicators of prooxidant-antioxidant homeostasis in the blood plasma in rats with diabetes mellitus complicated by ischemia-reperfusion of the brain.

Diabetes mellitus was simulated by injection of Streptozotocin (Sigma, USA) in the dose of 60 mg per 1 kg of the body weight into the intra-abdominal cavity of albino male rats at the age of two months. Six-month-old animals without diabetes and with its presence underwent bilateral carotid ischemia-reperfusion by clipping the common carotid arteries for 20 minutes. Early effects of ischemia-reperfusion were studied one hour after the start of reperfusion, and delayed - on the 12th day. The content of malonic aldehyde, diene conjugates, products of oxidative modification of proteins of neutral and basic character, activity of superoxide dismutase, catalase, glutathione peroxidase were determined in blood plasma. Numerical data were processed by means of the package of the applied software programs "Statistica" ("Statsoft", USA).

The content of lipoperoxidation products and the activity of antioxidant enzymes are found