ФЕСТИВАЛЬ МОЛОДІЖНОЇ НАУКИ "МЕДИЦИНА ТРЕТЬОГО ТИСЯЧОЛІТТЯ"

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ФЕСТИВАЛЬ МОЛОДІЖНОЇ НАУКИ "МЕДИЦИНА ТРЕТЬОГО ТИСЯЧОЛІТТЯ"

ТЕОРЕТИЧНА ТА ЕКСПЕРИМЕНТАЛЬНА МЕДИЦИНА

interalveolar septa. It is known from their medical history that these are people aged 40-52 years, with a history of injection drug addiction and chemotherapy due to lymphoma, severe arterial hypertension, high degree of obesity. Obviously, these patients had the circumstances for rapid and massive damage to the hemo-respiratory barrier. Patients in Group B lived longer, pulmonary insufficiency had a picture of interstitial pneumonia. Their age was 49-56 years, and a history of difficult circumstances (Diabetes Mellitus, Postinfarction cardiosclerosis and chronic pyelonephritis), causing a gradual viral lesion of the capillaries of the interalveolar septa, the development of inflammation and pneumosclerosis. In Group C, patients lived after the onset of the disease for almost 1 month. In the lung tissue, there is a picture of pronounced pneumosclerosis, which terminated with interstitial inflammation. However, the addition of a bacterial infection led to the formation of focal purulent pneumonia against the background of massive pneumosclerosis. The infected patients in this group had Hypertension disease moderate degree, Asthenic syndrome and obesity.

CONCLUSION: After observation and analysis of the data, it is evident that there is some correlation between the progression of the disease into the little outcome, with the fact that the patients had underlying medical conditions, and further testing and more samples will only prove the correlation.

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THE INVESTIGATION OF ANALGETIC AND ANTI-EXUDATIVE ACTIVITY OF PHARMACEUTICAL COMPOSITION OF ETORICOXIB WITH CAFFEINE

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The joints and locomotor system disease are accompanied by inflammation and pain syndrome. Around 80% of population independently of age experience pain in bones and joints. Pathologies have different clinical manifestation and location, but similar mechanism of the development.

The pharmacotherapy of these diseases is focused on the decrease of inflammation and pain. Nonsteroidal anti-inflammatory drugs (NSAIDs) are the most popular analgesics, which used for arthritis, arthrosis, gout and other inflammation processes treatment. NSAIDs also recommended for inflammation treatment, which was caused by cartilage tissue, joint and muscle damages.

The NSAID`s group includes drugs with different chemical structures: pirazolidins, oxicams, derivatives of salicylic, acetic, ethyl-carbonic and other acids, which has some common properties.

Most of NSAIDs non-selectively inhibit isoenzymes: cyclooxygenase-1 (COX-1) and cyclooxygenase-2 (COX-2). This non-selectivity can cause stomach ulcer and bleeding in gastrointestinal tract. New selective to COX-2NSAIDs (coxibs) associated with reduced effect to gastroduodenal damage. Celecoxib, rofecoxib and its pharmaceutic compositions were studied earlier at the medical and bioorganic chemistry department. Etoricoxib (Arcoxia) wasn't studied at our department, so we chose it for examination. Etoricoxib does not depress prostaglandins synthesis in mucous membrane of the stomach and does not affect thrombocyte function.

The goal of our research was to study the viability of formation of two-component pharmaceutical composition comprising of etoricoxib (arcoxia) and caffeine in regard to its effect on exudation and pain processes under condition of formalin-induced edema.

Pharmacological activity of active pharmaceutical ingredient (API) in pharmaceutical composition was studied by experimental model of formalin-induced edema. During the study of anti-exudative (AeA) and analgetic (AnA) activity, animals were divided into 5 groups with 6 animals in each. The formalin edema was made by subplantar injection of 2% formalin solution into hind rat`s paw. Rats of the 1st control group, were once administered 3% starch mucus intragastrically. Animals od the 2nd - 4th group, were administered of 3% starch mucus and arcoxia (3,6 mg/kg), caffeine (0,6 mg/kg) and its composition (arcoxia 3,6 mg/kg + caffeine 0,6 mg/kg). The reference drug sodium diclofenac (dose 8 mg/kg) received animals of the 5th group. All APIs and pharmaceutic compositions were entered 1 hour before the maximal edema development.

A measurement of AeA was made by the digital plethysmometer, and the size of rat`s hind paw was measured two times. First was made before active pharmaceutic components administration, and second was made after 4 hours of modeling formalin edema, when the swelling was maximal.

AnA evaluation is based on Von Frey method using analgesymeter (IITC Life Science (USA) for paw withdrawal threshold measurement. The sensory tip touching central fold of the animal`s paw. The animal paw withdrawal was considered as a reaction on irritation. The withdrawal threshold measuring was made in grams two times: before and after 4 hours of subplantar phlogogen`s injection (formalin). During AnA examination the researched compounds and the reference-drug were entered analogically to the substanses in AeA examination.

The results of AeA examination showed, that the addition of caffeine to arcoxia promotes the AeA increasing its value to the 72,2% , which exceed the AeA of the examined coxib (66,7%) and as the reference-drug (44%).

Caffeine also potentiated the arcoxia action relatively AnA, which was 61,0% in pharmaceutical composition. Moreover, AnA exceed the examined coxib (58,6%) and the sodium diclofenac (59,6%).

Conclusions. Experimental researches of AeA and AnA on the formalin-induced edema model, showed us the viability of the new pharmaceutic composition etoricoxib (arcoxia) with adjuvant caffeine development. We find the new pharmaceutical composition perspective as an analgetic and anti-inflammatory drug.

Mariana Holovko

RATIONALITY OF THE USE OF ANTACID DRUGS DEPENDING ON THEIR PHARMACOLOGICAI PROPERTIES

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Introduction. Antacids are drugs that, as a result of chemical reactions, neutralize or buffer the acid in the stomach without affecting its production. Antacids are classified as absorbable (soluble) and non-absorbable. The best known absorbable antacid is

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