

Therefore, inhibition synthesis of prostaglandins by indomethacin in animals significantly reduced diuretic and saluretic effects of thiocetam, indicating the possible involvement in eicosanoids to the renal effects of thiocetam.

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THE ACUTE TOXICITY STUDY OF TAGETES LUCIDA CAV. DRY EXTRACT

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An important characteristic of the substances of medicinal plants that are studied in order to create new drugs, in addition to high pharmacological activity should be their safety. In order to obtain information on the safety of new substances their acute toxicity is determined. This type of research allows one to obtain the necessary information to establish the toxicity level of the test substance, to determine the relationship between dose and adverse effects of the tested substance and to determine the species and gender sensitivity of laboratory animals to its action. A pharmacognostic analysis of species of *Tagetes* L. cultivated in Ukraine, golden marigolds was performed and the presence of phenolic compounds (flavonoids, hydroxycinnamic acids, tannins), essential oils, carbohydrates, fatty and amino acids was evident in their raw material (herb) as well as the dry extract from the studied raw materials was obtained.

Marigold (*Tagetes* L.) – a kind of annual or perennial herbaceous plants, which has about 50 species and about 600 varieties. Only 7 species have been introduced into the culture. In Ukraine, only the National Botanical Garden named after M.M. Hryshko of the National Academy of Sciences of Ukraine and the Donetsk Botanical Garden of the National Academy of Sciences of Ukraine cultivate golden marigolds (*Tagetes lucida* Cav.). Marigolds or Mexican tarragon (*Tagetes lucida* Cav.) Is a perennial herb with a strong pleasant aniseed scent that grows wild in the mountains of Mexico. This species is used in traditional medicine as an antihypertensive, antipyretic, diuretic, carminative and tonic medication.

The aim of the given research was to study the acute toxicity of the dry extract of golden marigold grass using the V.B. Prozorovsky method.

The study was performed on 30 white nonlinear male and female mice weighing 20-22 g which were divided into groups of 6 animals (3 males and 3 females) in each. Animals were intragastrically administered dry extracts of golden marigold herb in the dose range of 2000, 3000, 4000 and 5000 mg/kg. The control group of mice received equivolume amounts of purified water. To calculate the average lethal dose (LD50) after 14 days, the percentage of mortality in each group was determined according to the method of probit analysis of mortality-response curves according to V.B. Prozorovsky. After 14 days, the animals were removed from the experiment by dislocation of the cervical vertebrae, an autopsy was performed as well as the macroscopic examination of the internal organs (heart, lungs, kidneys, liver, spleen), in the end they were weighed and the mass coefficients were determined. The obtained data were statistically processed by the method of variation statistics using the statistical program Statistica 6.0.

The results showed that even after a single intragastric administration of dry extract of the golden marigold herb to mice of both sexes during the entire observation period, no deaths of experimental animals were registered. No abnormalities in the appearance of the animals were also observed. All animals were active, had smooth fur and clean skin, normal appetite, responded to sound and light stimuli, normal urination and defecation was preserved.

The administration of dry extract of golden marigold herb in doses from 2000 to 5000 mg/kg in no way affected the dynamics of body weight of mice of both sexes in comparison with the control group. Experimental and control animals gained weight in accordance with physiological norms. In the study of the absolute mass of the heart, liver, spleen, lungs and kidneys, calculating the relative mass of internal organs of animals (g) per 100 g of body weight, it was found that the mass of internal organs and relative mass of internal organs in mice of experimental groups did not change in relation to the mass of the internal organs of the control group. The administration of dry extract of golden marigold herb did not cause animal death in all applied doses during the entire

observation period (14 days). According to the K.K. Sidorov's classification, which is recommended by the State Pharmacological Center of the Ministry of Health of Ukraine, the studied extract of golden marigold herb can be classified as class V, i.e. almost non-toxic substances ($LD_{50} > 5000$ mg/kg).

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THE ANALYSIS RESULTS OF MEDICAL PRESCRIPTIONS AND DRUG CONSUMPTION IN PATIENTS WITH LYMPHOGRANULOMATOSIS IN UKRAINE

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The effective treatment organization of patients with Hodgkin's lymphoma requires significant costs, which in most countries are reimbursed by public funds or social health insurance programs. This is due to the high cost of chemotherapy regimens that have been used for a long time. Given the global trends in the medical care cost and drug expenses used in the treatment of cancer patients lead to the arising issues concerning development and introduction of rational models of pharmaceutical support for patients with Hodgkin's lymphoma.

Ukraine is no exception, where in the 2000s the main elements of control strategy for rational use of limited resources was the use of health technology assessment. One of the tools is clinical and economic analysis, namely frequency and structural analysis of drug consumption by different patient groups. The analysis results are the basis for effective management decisions in rational usage of health resources.

The aim of the study was to analyze medical prescriptions and the structure of drug consumption in patients with lymphogranulomatosis in Ukraine. The patients' medical records (455) with lymphogranulomatosis were studied. The historical, analytical, comparative, systemic, logical, hypothetical, deductive, graphical methods of scientific research, as well as clinical and economic analyses were used.

The study results were the following: on average, the patients were found to be in the hospital for 32 sick-days and they received 16,835 medical prescriptions. There were 37 prescriptions per patient. The first place in the prescriptions occupied drugs from groups L – Antineoplastic and immunomodulating agents, B – drugs affecting the blood system and hematopoiesis, and A – drugs affecting the digestive system and metabolism. These groups of drugs accounted for more than half of medical prescriptions (9247 or 54.93%). The prescription structure was dominated by drugs in the form of solutions or powders (62.78% of all prescriptions or 10569). In accordance with the II level of the ATC classification, the first three positions in prescriptions were occupied by drugs used in the chemotherapy and elimination of exacerbation symptoms of chronic pathologies. These drugs were from the following groups: L01 – antineoplastic and immunomodulating agents (12.80% or 2154 prescriptions), B05 – blood substitutes and perfusion solutions (11.95 % or 2012, respectively), C01 – drugs for the heart diseases treatment (9.99 % or 1681, respectively). Antineoplastic prescriptions ranged from 31 (L01C D01 – Paclitaxel) to 289 (L01DB01 – Doxorubicin) ones. The most prescribed drugs were L01DB01 – doxorubicin, AA01 – cyclophosphamide, and L01CB01 – etoposide. It was proven that patients with lymphogranulomatosis received an average of 8.3 prescriptions of antitumor drugs. The general indicator of the drug consumption was 23440.30 thousand UAH or 822.58 thousand US dollars, which, in terms of one patient, amounted to 51517.14 UAH or 1807.86 US dollars. It was found that 38797.60 UAH or 1361.50 USD were spent on the effective chemotherapy and maintenance of the patient's body, which was 8.21 and 17.1 times more than the minimum wage and living wage according to the data presented in the state budget for 2020 in Ukraine.

Thus, medical prescriptions and drug consumption by patients with lymphogranulomatosis have been found to reflect the nature of the therapy, namely the need for intensive chemotherapy courses, polymorbidity of patients as well as the severity of the pathological process. Considering the high treatment cost, the solution to the increase its availability level requires a systemic solution in various directions.