MINISTRY OF PUBLIC HEALTH OF UKRAINE
NATIONAL UNIVERSITY OF PHARMACY

TOPICAL ISSUES OF NEW DRUGS DEVELOPMENT

Abstracts of XXV International Scientific
And Practical Conference
Of Young Scientists And Student

April 18-20, 2018
Kharkiv

Kharkiv
NUPh
2018

UDC 615.1

Editorial board: prof. A. A. Kotvitska, prof. V. P. Chernykh, prof. A. L. Zagayko, S. Yu. Danylchenko

Compilers: K. Y. Netosova, I. O. Surikova, O. S. Prokopenko, A. S. Materiienko, D. V. Lytkin

Topical issues of new drugs development: Abstracts of XXV International Scientific And Practical Conference Of Young Scientists And Student (Kharkiv, April 18-20, 2018). – Kharkiv: NUPh, 2018. – 554 p.

ISSN 2616-6615

Book of Abstracts includes materials of Scientific and Practical Conference of Young Scientists and Students “Topical issues of new drugs development”. Materials are groupped according to the main directions of scientific, research and educational work of the National University of Pharmacy. Teoretical and practical aspects of the synthesis of biologically active compounds and development of medicinal substances on their basis; standardization of drugs, pharmaceutical and chemical-technological analysis, the study of raw materials and herbal remedies development, modern drug technology and extemporal recipe; biotechnology in pharmacy, modern advances in pharmaceutical microbiology and immunology, clinical trials of new drugs, pharmaceutical care for prescription and OTC-drugs, evidence-based medicine, modern pharmacotherapy, socio-economic studies in pharmacy, marketing management and pharmacoeconomics during the development, implementation and use of drugs, quality management in development, production and traffi cking of drugs; information technologies in pharmacy and medicine; basics of pedagogy and psychology; social science; philology are presented. Also in book there are published material ob All-ukrainian contest of student scientific work on speciality “Pharmacy, Industrial Pharmacy”.

For a wide audience of scientists and pharmaceutaical and medicinal employees.

UDC 615.1

ISSN 2616-6615

TOXICOLOGICAL STUDY OF THE NEW GEL, WHICH CONTAINS AN EXTRACT OF ALOE AND EXTRACT OF OAK BARK

Zhurenko D. S.
Scientific supervisor: prof. Tsubanova N. A.
Institute of qualification improvement for pharmacists of National University of Pharmacy, Kharkiv, Ukraine
zidikor@gmail.com

Introduction. To date, periodontal diseases are widespread, diagnosed in more than 75% of the world's population and affects all age groups. Drugs based on medicinal plants should be considered as promising products, which have a minimum of negative reactions along with the expressed therapeutic effect.

Aim of this work was to study the acute toxicity of new gel containing plant extract of oak bark (EOB) and extract of aloe (EA).

Materials and methods. Acute toxicity studies were conducted in accordance with the guidelines for white nonlinear rats with 180–220 g in weight in several steps: the study of acute toxicity of components of a new gel, the study of acute toxicity of a new gel under intragastric administration, intraperitoneal and at the skin application.

Results and discussion. It is established that it is not possible to determine LD_{50} by intragastric administration of EOB and EA, since administration of a maximum dose of 15100 mg / kg did not cause lethality of rats. In further studies the acute toxicity of extracts was studied only at a dose of 15100 mg / kg. When intraperitoneally administered, LD_{50} of EOB is 2580 (1930–3220) mg / kg, LD_{50} of EA – 2180 (1460–2900) mg / kg. During at the observation for 14 days, there were no visible signs of the toxic effect of the new gel on the functional state of the animals at the maximum recommended doses: intragastric – 15100 mg / kg and skin application – 22600 mg / kg.

Conclusions. The complex of the conducted studies allowed to establish that the new gel does not have a toxic effect on organs and systems of experimental animals and does not have a lethal action. EOB and EA under conditions of intragastric administration are classified as VI class of toxicity "Relatively harmless substances". When administered intraperitoneally, the extracts studied are classified as V class of toxicity "Practically nontoxic substances". According to the study of acute toxicity, the new gel, in conditions of intragastric administration and skin application, belongs to the VI class of toxicity "Relatively harmless substances".

A new gel containing the EOB and EA is promising for further pharmacological studies with the aim of developing a national periodontal protective agent and introducing it into medical practice, since, in addition to the establishment in previous studies, the expressed pharmacological activity does not exert a toxic effect on the body at extremely high doses.