content has a fairly dense consistency. Samples with 20% oil phase (No. 10-12) have unsatisfactory organoleptic properties.

Conclusions. As evidenced by the results of determining the viscosity indicators and the given rheograms, when the concentration of the oil phase, the complex emulsifier, and the introduction of CCS are increased, there is an increase in the viscosity indicators.

References

1. De Kwaadsteniet M, Doeschate KT, Dicks LM. Nisin F in the treatment of respiratory tract infections caused by Staphylococcus aureus. // Lett Appl Microbiol. 2019. 48(1). P.65–70.

2. Maurício Elisabete, Rosado Catarina, Duarte Maria Paula, Verissimo Joana, Bom Sara, Vasconcelos Laura. Efficiency of Nisin as preservative in cosmetics and topical products. // Cosmetics. 2017. 4(41) P. 1–11.

3. Harsha Kharkwal. Biodegradable polymers, role in enhancing bioavailability of drug/ Harsha Kharkwal, Kumud Bala, Deepshikha Pande Katare. // Asian Journal of Biomedical and Pharmaceutical Sciences. 2018. 1(5). P.1–11.

4. Wnek G.E. Encyclopedia of Biomaterials and Biomedical Engineering, vol. 1./ Wnek G.E., Bowlin G.L. New York, Marcel Dekker, 2018.– 448 p.

FEATURES OF DEVELOPMENT OF MEDICINAL PRODUCT IN CAPSULES

Tarasenko V.O., doctor of pharmaceutical sciences, associate professor of the department of military pharmacy, faculty of training military doctors (pharmacists), Ukrainian Military Medical Academy, Kyiv, vika_tarasenko83@ukr.net

Koziko N.O, candidate of pharm.sciences, associate professor.. Bogomolets National medical university Kyiv, Ukraine, nata.koziko@gmail.com

Department of pharmacy and industrial drug technology

Salma Boudrai Uahid, student of the Faculty of Pharmacy Bogomolets National medical university Kyiv, Ukraine

Actuality. fatty liver dystrophy is a global health problem in connection with their widespread distribution and leading role in their development terminal liver diseases such as cirrhosis and hepatocellular carcinoma. The poor clinical signs, long asymptomatic course, various extrahepatic manifestations cause significant difficulties in recognizing this group of diseases. At the same time, the natural course of chronic fatty liver dystrophy is determined progression of the disease with the formation of liver fibrosis, and later cirrhosis, which leads to irreversible changes in the structure and loss of organ function. fatty liver dystrophy liver lesions are most often registered in age group from 30 to 49 years and lead to a decrease in the quality of life of patients, temporary loss of working capacity, disability, which causes significant economic losses[1, 3].

The prevalence of fatty liver dystrophy varies widely depending on study population and definitions. Even in industrialized countries, such a problem is registered in 20-35% of the adult population; in women older than 40 years, this pathology is observed in 75% of cases. Annually due to the increase in cases obesity and the growth of type 2 diabetes also increase the incidence of fatty liver disease. According to a study by American scientists, the prevalence of fatty liver dystrophy is up to 16% of cases in patients with normal body weight and up to 76% in patients with obesity[2,4].

The purpose: development based on studied literary data, composition and technology of pharmaceutical composition in the form of hepatoprotective capsules.

Materials and methods: Pharmaco-technological tests, such as studies of flowability, angle of natural slope, bulk density, final moisture, disintegration time.

Results. It should be noted that the range of encapsulated drugs is based on of native medicinal plant raw materials is quite limited and needs to be expanded, which once again emphasizes the relevance of this work.

First of all, we needed to investigate all the technological parameters of the active components and their mixtures of the future dosage form.

As we have seen, all powders of medicinal raw materials and their mixture, which also was subject to delamination, had very low technological properties, such as low flowability, high index of the angle of natural slope, high humidity, which we proposed to correct using the method of wet granulation. For this, we prepared solutions of moisturizers, as which we used distilled water, ethyl alcohol in concentrations of 40, 75, and 96%, as well as solutions of potato starch and methylcellulose in concentrations of 2, 3 and 5% and studied their influence on the technological parameters of the obtained granulate. It was established that the use of moisturizers allowed to increase low index, and the use of distilled water and ethanol in different concentrations (40, 75 and 96%) did not lead to a significant improvement of this indicator, at the same time, the use of solutions of potato starch and methylcellulose significantly increased the flowability indicator, especially at a concentration of 3 and 5%

Conclusions. Based on the conducted research, the composition was proposed pharmaceutical composition in the form of capsules of tonic action. Conducted tests on the technological properties of a mixture of dry extracts. It has been proven that it has very poor flowability and moisture. Conducted research on the selection of excipients with the aim of selection of a humidifier for wet granulation.

List of references

1. Preclinical safety evaluation of drone brood homo- genate and justification of pharmacological action. B. Pavliuk, I. Stechyshyn, M. Chubka et al. *Pharmacia*.2021. Vol. 68(4). P. 771–777.

2. Nutritional composition of Apis mellifera Drones from Korea and Denmark as a potential sustainable alterna- tive food source: Comparison between developmental stages. S. Ghosh, H. Y. Sohn, S. J. Pyo et al. *Foods.* 2020. No. 9. P. 389.

3. Sampat Ghosh, Chuleui Jung, Victor Benno Meyer- Rochow. Nutritional value and chemical composition of larvae, pupae, and adults of worker honey bee, Apis mellifera ligustica as a sustainable food source. *Journal of Asia-Pacific Entomology*. 2016. Vol. 19 (2). P. 487–495.

4. Drone brood – as a raw material for the manufacture of medicines and dietary supplements. T. A. Hroshovyi, M. M. Dobrynchuk, B. V. Pavliuk et al. *Sciences of Eu rope.* 2021. Vol. 63(2). P. 36–39.

MICROSCOPIC STUDIES OF STEVIOSIDE POWDER

Tarasenko V.O., doctor of pharmaceutical sciences, associate professor of the department of military pharmacy, faculty of training military doctors (pharmacists), Ukrainian Military Medical Academy, Kyiv, vika_tarasenko @ukr.net

Koziko N.O, candidate of pharm.sciences, associate professor.. Bogomolets National medical university Kyiv, Ukraine, nata.koziko83@gmail.com

Department of pharmacy and industrial drug technology

Sagvan B.M.Ameen, student of the Faculty of Pharmacy Bogomolets National medical university Kyiv, Ukraine

Actuality. Diabetes at the global level, unfortunately, firmly holds the primacy among the most common and dangerous diseases of the 20th century, and now the 21st century. The global epidemics of plague, smallpox, and typhus, which raged in the past, have gone into the past, but their place has not remained empty. New diseases correspond to new times. Medicine will call the previous century "the era of diabetes", which are the main causes of death worldwide: no other reason kills more people every year than from these diseases[3].

Therefore, an important task of medicine and pharmacy is the search for effective substances of plant origin and the development of drugs based on them. Trehalose stevioside is promising in this context. These substances have proven themselves in the complex treatment of diabetes mellitus[1,2,4].

The purpose of the work. Analyze and summarize the data of scientific literature on the issue of methodological approaches to the creation of tablet dosage forms as well as the state of development of drugs for the prevention and treatment of diabetes mellitus in the world and to confirm the prospects of creating medicines based on stevioside