Aim. Improvement of the technology of extemporaneous oil suspension to increase the bioavailability of the drug.

Materials and methods. The object of our research was the extemporal suspension of Anestezin and Norsulfazol in Vaseline oil. Technological and biopharmaceutical research methods.

Results and discussion. The active pharmaceutical ingredients in this suspension are not soluble in the prescribed solvent, Vaseline oil. Therefore, a suspension system formed. To increase the bioavailability of drugs it is necessary to grind them as much as possible and distribute them evenly in the oil. Therefore, we have suggested crushing with ethanol. Smaller particles obtained. This increases stability of the suspension.

It known from the literature that the bioavailability of drugs is better from vegetable oils than from Vaseline oil. We have prepared a suspension with norsulfazole and anesthetic with sunflower oil.

Then we carried out biopharmaceutical studies. The release of anesthesia into agar investigated. These studies have shown that the fastest release occurs from suspensions in which the substances have been ground with 10 drops of ethanol. More release was from the suspensions prepared with sunflower oil.

The suspensions were stored for 1 month at room temperature. During the whole period of observation biopharmaceutical studies gave reproducible results. This fact confirms the stability of the suspension.

Conclusions. The technology of extemporaneous dental suspension has improved. Pre-shredding of drugs with ethanol proposed. Preparation with sunflower oil is proposed. According to the new, improved technology and with the use of sunflower oil suspension with Norsulfazol and Anesthezin is prepared. A more complete release of drugs from the new suspension by biopharmaceutical research has established. The stability of the suspension in the process of preservation for 1 month at room temperature studied.

STUDY OF ASSORTMENT OF MEDICAL PREPARATIONS FOR TREATMENT OF DEMODECOSIS

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Introduction. The mite of the genus Demodex is absolutely in each person and this disease affects about 65% of the population of the Earth, there is no specific cause of the disease, the symptoms of demodicosis can be confused with the symptoms of other skin diseases. To date, the problem of treatment and rehabilitation of patients with demodex is very relevant, as there is an increase in morbidity among people of working age. As a result of the chronic inflammatory process on the face of the skin formed defects resistant to most methods of external therapy and cosmetic correction. Cosmetic defects affect the socio-psychological state of the person, often cause depression, reduce the quality of life of patients, which makes this problem relevant not only in the medical, but also in the social aspect. There are many direction of pharmacotherapy of demodicosis, among which are etiotropic and symptomatic therapy. The treatment of demodicosis is prescribed by the physician individually (depending on the form and severity of the course of the disease). For effective treatment, a combination of systemic and topical drugs is used (for example, a combination of Trihopol antibiotic with "Ichthyol" ointment).

The aim of our research was to carry out an analysis of the range of medicinal products presented in the pharmaceutical market of Ukraine, which are intended for local treatment of demodicosis.

Materials and methods. The analysis of the range of drugs was carried out using the electronic information retrieval system of the electronic version of the State Register of Medicinal Products of Ukraine.

Results and discussion. Today, domestic and foreign medicines are used in the pharmaceutical market of Ukraine for the treatment of demodicosis. The share of foreign producers is 69%. The range of medicines for the treatment of demodicosis is presented as traditional pharmaceutical forms with solutions, creams, pills, ointments, and newer forms in the form of gels, emulsions. Cosmetic products for the treatment of demodicosis are creams, lotions, gels, emulsions, suspensions.

Basic preparations for the treatment of demodicosis of the face:

Zinc-ihtiolovaya paste – a combined medicinal product that provides bactericidal and astringent action (it is necessary to apply it on the cleansed face once or twice a day);

«Metrogyl gel» (on the basis of metronidazole) – a remedy with pronounced anti-demodic activity, which must be applied to the affected areas of the skin twice a day;

Sulfoedecortem (a hormonal ointment of demodicosis, consisting of sulfur and hydrocortisone) – a drug combination that suppresses the activity of the tick and provide anti-inflammatory effect (helps remove excess horny layer of the epidermis, allowed to use for no more than two weeks, after which you need to take a break).

Systemic drug preparations are represented by antibiotics. The most commonly used metronidazole, which is a derivative of the nitroimidazole group. Metronidazole has a pronounced anti-inflammatory, anti-edema, immunomodulatory effect. Another drug of choice is ornidazole. The drug has both antiparasitic and bacteriostatic effects, increases the activity of neutrophils, stimulates adrenergic structures, enhances reparative processes.

Conclusions. Thus, it has been established that the range of medicinal products for the treatment of demodicosis is represented predominantly by foreign manufacturers on the basis of substances of synthetic origin. Taking into account the above, the expansion of the range is due to the creation of new domestic medicinal products of combined action.

THE DEVELOPMENT OF EXTEMPORANEOUS GEL OF ANTIMYCOTIC ACTION WITH TERBINAFINE HYDROCHLORIDE AND TEA TREE ESSENTIAL OIL

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Introduction. According to large epidemiological studies conducted in the European Union, mycoses of smooth skin make up about 2%, and mycoses of feet and onychomycosis account for 22% of the reasons for seeking medical attention. Combined antifungal medicines for local therapy of mycoses are very popular today.

The **aim** of this work is the development of extemporaneous gel of antimycotic action with terbinafine and tea tree essential oil.

Materials and methods. As the objects of research were used: terbinafine hydrochloride, tea tree essential oil, various hydrophilic non-aqueous solvents, gelling agents and neutralizers. Organoleptic, physical-chemical and microbiological properties of model gel's samples by the methods of State Pharmacopoeia of Ukraine were determined.

Results and Discussion. As active pharmaceutical ingredients of extemporaneous antimycotic gel terbinafine hydrochloride and tea tree essential oil have been chosen. In order to justify their rational concentration in the composition of the investigated gel were conducted microbiological researches. As rational concentration of active ingredients of the gel were chosen the following: terbinafine hydrochloride – 0.5%, essential oil of tea tree – 1.5%. In order to substantiate the type of gelling agent and its concentration, the following compounds were obtained: five gelling agents with concentrations from 1.0 to 3.0%, terbinafine was introduced into the samples as a solution in propylene glycol, and tea tree essential oil as a solution in ethanol. Based on the research conducted for further study were taken gel's samples with Carbopol 940. Considering all experimental data, we have conducted research on the development of rational technology of extemporaneous antimycotic gel. The gel obtained according to the developed technology has uniform consistency with a specific pleasant smell, while color, pH 5.5-6.0.

Conclusions. The composition of extemporaneous antimycotic gel was experimentally substantiated. Based on microbiological, technological and physical-chemical researches rational technology of the proposed gel was developed. The stability of the developed medicine during storage (3 months at two temperature regimens of 8-15°C and 15-25°C) was studied. Research of microbiological purity established the compliance of the proposed gel to requirements for soft medicines for topical application.