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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.

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Results and discussion. Hyaluronic acid is an integral part of the extemporal formulation for wrinkle control. When applying this component, attention should be paid to concentration, since allergy or may be addictive to the drug. When designing a recipe, remember the purpose, age and type of skin.

Conclusion. On the basis of the analysis it can be established that the pharmaceutical and cosmetic market presents a wide range of ready-made products on the basis of hyaluronic acid, but the extemporal formulation has several advantages over industrial production, because it allows taking into account the individual characteristics of a particular patient. Thus, when choosing components for the cream it is possible to choose a certain concentration of hyaluronic acid, oil and water phase and the emulator, depending on the type of skin.

EXPERIMENTAL STUDIES IN DEVELOPMENT OF SUPPOSITORIES OF COLOPROCTOLOGICAL APPLICATION

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Introduction. In recent decades in Ukraine, as well as in most civilized countries of the world, there is a steady increase in the incidence and prevalence of coloproctological diseases, with the share of 15,3% among digestive diseases. The most common diseases of the anal canal and tissues of the perineum - hemorrhoids, anal fissures, rectum gulps make up from 20 to 41% in the structure of coloproctological diseases. From hemorrhoids suffer 10-15% of the adult population, and its share among diseases of the rectum is about 42%; the proportion of anal fissure accounts for up to 15% of patients in proctologic hospitals. Diseases of the rectum of non-tumor genes significantly impair the quality of life of patients, in 2-3% they lead to disability, limit participation in social life. Drug treatment consists in the local application of drugs with anti-inflammatory, angioprotective and analgesic action. In accordance with the adapted clinical guideline based on the evidence of the All-Ukrainian Association of Gastroenterologists, the second line drugs of ulcerative colitis medical treatment are systemic and topical corticosteroids. Taking into account the absence of domestic suppositories containing corticosteroids on the pharmaceutical market, we consider it an urgent direction of scientific research the pharmaceutical development of suppositories containing hydrocortisone acetate. Historically, the first corticosteroid and benchmark for comparing the strength of all corticosteroids is hydrocortisone acetate.

Aim. To study physical and chemical properties of hydrocortisone acetate substance and suppositories with its content.

Results and discussion. Hydrocortisone acetate, like all corticosteroids, is a hydrophobic substance, so the first stage of the study was to investigate the solubility of the substance with the purpose of its rational introduction to the suppository basis. The solubility was determined in the following substances: glycerol, propylene glycol, polyethylene oxide-400 and hard fat at different temperatures and with the addition of solubilizers. It was found that hydrocortisone acetate is soluble in propylene glycol at a ratio of 1:50 with the addition of tween-80 and PEG-40-stearate in an amount of 0.3 g each.

Conclusions. Thus, the expediency of developing the composition of suppositories with hydrocortisone acetate has been substantiated and its solubility in solvents allowed for use in pharmaceutical technology has been investigated.

THE TOPICALITY OF USING GELS IN DERMATOLOGY

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Introduction. Semisolids constitute a significant proportion of pharmaceutical dosage forms. They serve as carriers for drugs that are topically delivered by way of the skin, cornea, rectal tissue, nasal mucosa, vagina, buccal tissue, urethral membrane, and external ear lining. Because of their peculiar rheological behavior, semisolids can adhere to the application surface for sufficiently long periods before they are washed off. This

property helps prolong drug delivery at the application site. A semisolid dosage form is advantageous in terms of its easy application, rapid formulation, and ability to topically deliver a wide variety of drug molecules.

Aim. The aim of the work was to study the possibility of using semisolids in dermatology

Results and discussion. Semisolids are available as a wide range of dosage forms, each having unique characteristics. Ointments are semisolid preparations for external application to skin or mucous membranes. Their composition softens but does not melt upon application to the skin. Therapeutically, ointments function as skin protectives and emollients, but they are used primarily as vehicles for the topical application of drug substances. Creams are semisolid dosage forms that contain one or more drug substances dissolved or dispersed in a suitable base, usually an oilin-water emulsion or aqueous microcrystalline dispersion of long-chain fatty acids or alcohols that are water-washable and are cosmetically and aesthetically acceptable. Gels are semisolid systems that consist of either suspensions of small inorganic particles or large organic molecules interpenetrated by a liquid. Gels can be either water based (aqueous gels) or organic solvent based (organogels). Pastes are semisolid dosage forms that contain one or more drug substances incorporated in a base with large proportions of finely dispersed solids.

A wide range of raw materials is available for the preparation of a semisolid dosage form. Apart from the usual pharmaceutical ingredients such as preservatives, antioxidants, and solubilizers, the basic constituents of a semisolid dosage form are unique to its composition. The basic raw materials used in the development of various semisolid dosage forms. The choice of suitable raw materials for a formulation development is made on the basis of the drug delivery requirements and the particular need to impart sufficient emolliency or other quasi-medicinal qualities in the formulation. Semisolid dosage forms usually are intended for localized drug delivery. In the past few years, however, these forms also have been explored for the systemic delivery of various drug candidates whose peroral bioavailability is questionable. Several novel drug-carrier systems have been examined that offer enhanced release, controlled release, or a stable environment for the incorporated drug. Even greater interest has been shown in the advancement of methods with which to characterize semisolid dosage forms. Skin, which is the most easily accessible organ of the human body, continues to be the preferred site for the application of topical drug delivery systems.

Conclusions. Thus, the use of soft medicinal forms is a promising direction of dermatology.

STUDY OF DISPERSION DEGREE OF MEDICINAL PLANT MATERIAL

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Introduction. Over the last three decades, there has been a huge increase in use of herbal raw material (HRM) across the world. About 80% of the world's population, especially those in developing countries, uses herbal medicines as part of their primary health care needs.

Aim. The aim of the work is to study the powders of medicinal plant raw material used for making filter packages (FP) and substantiation of the standardization system for raw materials and water extracts obtained from the filter package.

Materials and methods. The objects of the study were industrial batches of 30 types of raw materials in filter bags and water extracts made from them.

Determination of medicinal plants dispersion was carried out in accordance with article StPHU "Determination of powder disintegration."

The study of morphological features of raw materials performed on binocular stereomicroscope MBS-2 and IBI-6 with glasses and h15 x7, x8 and h40 lens.

Results and discussion. Optimal grinding of HRM contributes to a more complete extraction of biologically active substances. The size of the particles has a significant impact on the quality of received water extracts. Previously, research was conducted on comparative analysis of water extracts from grinded HRM packed in packets and filter bags. But our research has shown that the grinded HRM packaged in filter bags is in the range of 2.0 mm to 0.16 mm and the content of particles of different batches varies. Fractionation of powders was carried out by sieving successively through a set of sieve diameters

5. TECHNOLOGY OF PHARMACEUTICAL, PERFUMERY AND COSMETIC PRODUCTS

6. EXTEMPORAL AND MANUFACTURE DRUG TECHNOLOGY SECTION