

Results and discussion. Allantoin softens the stratum corneum, promotes the separation of dead cells, and stimulates tissue regeneration. Sodium hyaluronate on the skin forms a polymer network, which allows other biologically active substances to linger longer on the skin and penetrate deeper into the layer of the epidermis. Sodium hyaluronate has wound healing and antibacterial properties. Vitamin E is a strong antioxidant. D-panthenol is a substance with excellent moisturizing and regenerating effects. Due to the powerful activity of D-panthenol has the ability to penetrate deep into the epithelium and provides its full recovery at the cell level.

Horsetail extract is an anti-inflammatory, wound-healing, hemostatic agent. He also has a disinfecting, astringent action. The extract cleanses and nourishes the skin, restores normal physiological balance, contains trace elements and macronutrients, therefore it nourishes the skin well and makes it elastic.

The study on the voluntary basis was attended by NUPh students with skin lesions at the level of the dermis. Each of them had peculiar skin damage properties. The health condition of each of the students was satisfactory. Students used this gel for three months a day, 85% of the students improved their skin condition, traces of mechanical damage gradually began to disappear.

Conclusions. The preliminary composition of the gel proved to be a promising drug. Our further research will be the development and justification of the composition and technology of the gel.

DEVELOPMENT OF THE ANTI-INFLAMMATORY CREM FOR THE TREATMENT OF CHEILITIS

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Introduction. Cheilitis is inflammatory disease of lips and their mucous membranes. It's the disease which not give a person to feel well like any problem with appearance and make serious inconveniences.

There are a lot of kinds of cheilitis such as meteorology, actinic, hypo- and avitaminosis ones and etc. Usually for their treatment they used lipsticks, various lip balms, nutritious creams with different oils and etc. Creation of medicine for treatment and prevention of various cheilitis for people who working in an aggressive environment is a real challenge for farmaceutical science. It should be noted that there are some types of cheilitis, such as herpetic or allergic, require drugs that directly affect the etiological factors. Complicated types of heilitis: granulary, exfoliative, a number of symptomatic cheilitis require complex treatment.

In this case the most successful and effective form of treatment is the cream because it does not impair the condition of mucous membranes of the affected organ, improves the functional state and metabolic processes, and at the same time provides the opportunities to introduce into the medication various components.

For this purpose as a biologically active substance we used natural extracts, in particular, the lipophilic complex of bee pollen.

The study of the chemical composition of the lipophilic extract of bee pollen has proven the presence of biologically active substances in it, for example polyunsaturated fatty acids, carotenoids, tocopherols and other compouds. Pharmacological studies have shown that the bee pollen lipophilic complex has a high reparative and anti-inflammatory activity, stimulates metabolic process in the skin, doesn't have allergenic, local and general toxic effects.

As a base for the cream was chosen the oil/water emulsion system, because the bases of this type return the skin lost moisture, easy to apply on its surface, quickly absorb, contain a small amount of fats and fatty substances, which corresponds to the physiological needs of the skin.

The aim of our work was to develop the composition and technology of the cream with a lipophilic complex of bee pollen, intended to treat cheilitis.

Material and methods. Emulsions were prepared by inversion of phases. Colloidal stability was evaluated after centrifugation, thermostability was determined in the absence of stratification of the cream

that tested in various temperatures. The pH of the aqueous dispersion was determined potentiometrically. The quantitation of the amount of carotenoids was measured on a spectrophotometer.

Results and discussion. For the treatment and prevention of cheilitis the cream which includes the biologically active substance – the lipophilic complex of bee pollen – is proposed. The technology of the cream with lipophilic complex of bee pollen was developed, thermo- and colloidal stability was studied. Studies are continuing to determine the shelf life of the cream.

Conclusions. The composition of the cream with lipophilic complex of bee pollen for treatment and prevention of cheilitis was experimentally substantiated.

JUSTIFICATION OF THE COMPOSITION OF SUPPOSITORIES OF REPARATIVE ACTION

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Introduction. Currently, there is an increase in the number of diseases of childbearing age women. Cervical erosion is not an exception to the total number of diseases. The urgency of research on the development of medicinal products for the treatment of this pathology is due to statistics, namely, according to the World Health Organization in 2014, this disease was found in 40% of the total female population. Moreover, 64% of the total number of cases of this disease were diagnosed in women of optimal childbearing age (18 to 25 years old). Erosion of the cervix in medicine is included in the category of precancerous diseases, in this regard, it requires close attention and mandatory medication.

There are many ways to treat cervical diseases. The choice of technique depends on the severity of the process and many other factors. It is also necessary to treat concomitant inflammatory processes. Because of the variety of reasons for the pathology occurrence universal schemes and drugs do not exist.

Based on the literature research on the aetiology and pathogenesis of cervical erosion, dexpanthenol and chlorhexidine bigluconate have been selected as active pharmaceutical ingredients. The combination of these substances will provide a comprehensive reparative, anti-inflammatory and antiseptic effect on the pathological process.

Aim of the study. To carry out research on the justification of composition for suppositories containing dexpanthenol and chlorhexidine bigluconate.

Materials and methods. Taking into account the physicochemical properties of dexpanthenol and chlorhexidine bigluconate, it is expedient to use a hydrophilic macrogol suppository base (a mixture of macrogols 400 and 1500).

Concentration of chlorhexidine bigluconate in all samples was 0.016 g, the concentration of dexpanthenol in the preparation Depanthol – 0.1 g.

Results. Developing suppositories based on macrogols 400 and 1500 is to determine the ratio of these substances. Usually, as a suppository basis, the "working" ratio of macrogols 1500: macrogol 400 as 95: 5 is used, but active components can significantly affect the quality of suppositories. Therefore, the main task of performing experimental studies was to determine the concentrations of macrogols 1500 and 400. For this purpose, model samples were developed and their physicochemical, rheological and biopharmaceutical properties were investigated. The quality of the suppositories was evaluated in appearance, time of disintegration, hardening temperature. Investigating the dehydrating properties of suppositories, it has been found that samples exhibit high osmotic (dehydrating) properties (over 700% for 12 hours of experiment). By the sum of quality indicators, all samples can be used for further biopharmaceutical research.

In the technology of suppositories manufacturing temperature factor plays an important role. To determine this parameter, rheological studies were performed using a rheoviscometer. From the analysis of the rheological behaviour of the suppository mass, depending on the temperature, the temperature of the suppository mass preparation was determined – 46-48 ° C. Mixing speed – 45 rpm.

Conclusions. A complex of pharmaceutical studies has been carried out on the development of the composition of reparative and antibacterial action suppositories.