

CONCERNING THE CREATION OF AN OINTMENT FOR THE TREATMENT OF ALLERGIC DERMATITIS WITH SECONDARY FUNGAL INFECTION

Fadil Fadil Ardzhamand, Yarnykh T. G., Rukhmakova O. A.
National University of Pharmacy, Kharkiv, Ukraine
rukhmakovaolga@gmail.com

Introduction. Over the past decade especially increased proportion of the total incidence of human allergy primarily by skin lesions of allergic nature. The modern assortment of ointments enables use for the treatment of allergic dermatoses with secondary fungal infection anti-inflammatory and antifungal medicines of synthetic origin. As for medicines of natural origin with complex specified pharmacological activity only ointment “Fladeks” is available, containing polyphenols of Canadian desmodium grass.

Aim is creation of a new ointment for the treatment of allergic dermatitis with secondary fungal infection.

Results and discussion. As active ingredients in the composition of the new ointment with anti-inflammatory, anti-allergic and antifungal action proposed to use dry extract of licorice root, terbinafine hydrochloride and lavender oil. The process of the medicine’s sample preparation was carried out in accordance with the generally accepted rules of ointments preparation. Dry extract of licorice root were introduced in the ointment as an aqueous solution. Terbinafine hydrochloride was dissolved in propylene glycol at a temperature of (40.0 ± 2.0) °C. Lavender essential oil was pre-dissolved in the calculated amount of soybean oil.

Because allergic dermatitis with secondary fungal infection occurring with fairly severe dry skin and need of constant moisture, as ointment’s bases were examined emulsion systems.

After processing technology of the medicine was conducted studying of its organoleptic, physical, chemical properties and stability. The resulting ointment has a light brown color, pleasant odor, pH = 5.0-6.0, homogeneous and stable. The results of the rheological studies suggest that the said product is dispersed system with the coagulation type structure, characterized by elastic-viscous-plastic properties.

Study of osmotic activity showed that the model composition of the ointment provides “soft” and short dehydrating action that avoids damaging effect on the skin tissue and their repairing processes.

Conclusions. Proposed ointment with licorice root extract, terbinafine hydrochloride and essential oil of lavender is promising for use as a medicine for the treatment of allergic dermatitis with fungal complications.