Allergic skin disease pathology is widespread in the world and in the last decade has attracted the attention of doctors. In Ukraine, 40% of adults and children suffer from all types of allergic dermatitis.

The aim of this work is to study the current state of treatment of allergic dermatitis complicated with the secondary fungal infection, and substantiate the necessity for creating the extemporaneous ointment for the treatment of this skin pathology.

The known recommendations of doctors concerning the treatment of allergic dermatitis include measures aimed at excluding or reducing a contact with a variety of triggers, skin care (permanent cleaning and moisturizing) and the treatment of pruritus and chronic inflammation with anti-inflammatory medicines depending on the severity, localization of lesions of the skin, as well as skin infections associated with allergic dermatitis. In addition to the systemic therapy, the topical treatment of affected areas of the skin is also recommended for patients with allergic dermatitis. The external therapy should be carried out taking into account the clinical form and stages of the disease.

To analyze the existing extemporaneous formulations for the treatment of allergic dermatitis complicated with the secondary fungal infection prescriptions of various soft medicinal forms for treating allergic dermatitis approved by the Ministry of Public Health of Ukraine have been studied. The absence of antifungal components in their composition has been shown. The necessity of creating a new extemporaneous ointment for the treatment of allergic dermatitis complicated with the secondary fungal infection with the complex anti-allergic and antifungal action using a dry extract of licorice root, essential oil of lavender and terbinafine hydrochloride has been substantiated.

**Key words:** allergic dermatitis; fungal infection; skin; treatment

T. G. Yarnykh, V. S. Levchenko, O. A. Rukhmakova
National University of Pharmacy

**MODERN ASPECTS OF TREATMENT OF ALLERGIC DERMATITIS WITH THE SECONDARY FUNGAL INFECTIONS**

Allergic skin disease pathology is widespread in the world and in the last decade has attracted the attention of doctors. In Ukraine, 40% of adults and children suffer from all types of allergic dermatitis.

The aim of this work is to study the current state of treatment of allergic dermatitis complicated with the secondary fungal infection, and substantiate the necessity for creating the extemporaneous ointment for the treatment of this skin pathology.

The known recommendations of doctors concerning the treatment of allergic dermatitis include measures aimed at excluding or reducing a contact with a variety of triggers, skin care (permanent cleaning and moisturizing) and the treatment of pruritus and chronic inflammation with anti-inflammatory medicines depending on the severity, localization of lesions of the skin, as well as skin infections associated with allergic dermatitis. In addition to the systemic therapy, the topical treatment of affected areas of the skin is also recommended for patients with allergic dermatitis. The external therapy should be carried out taking into account the clinical form and stages of the disease.

To analyze the existing extemporaneous formulations for the treatment of allergic dermatitis complicated with the secondary fungal infection prescriptions of various soft medicinal forms for treating allergic dermatitis approved by the Ministry of Public Health of Ukraine have been studied. The absence of antifungal components in their composition has been shown. The necessity of creating a new extemporaneous ointment for the treatment of allergic dermatitis complicated with the secondary fungal infection with the complex anti-allergic and antifungal action using a dry extract of licorice root, essential oil of lavender and terbinafine hydrochloride has been substantiated.

**Key words:** allergic dermatitis; fungal infection; skin; treatment
Allergic skin disease pathology is widespread in the world and in the last decade has attracted the attention of doctors. In Ukraine, 40 % of adults and children suffer from all types of allergic dermatitis [1].

Taking into account the fact that children and young people of the working age suffer from skin allergies more often the conclusion can be made that this pathology results in a considerable labor loss, health reduction and significant socioeconomic damage.

Economic damage from allergic skin diseases is rather high and is determined not only by direct costs for patients, but also by the expenses needed to treat complications of the disease. The leading place among allergic complications belongs to the secondary fungal infection [2].

At the current pharmaceutical market of Ukraine there are many industrial ointments for the treatment of allergic dermatitis complicated with fungal infection with different compositions and mechanisms of action. Preferably, these medicines are monodrugs based on synthetic substances [3].

As for extemporaneous ointments most of them are represented by medicines with a relatively narrow focus of the pharmacological action; therefore, diversification of the range of extemporaneous drugs is important due to creation of a new combined soft dosage form with the complex anti-allergic and antifungal action.

The aim of this work is to study the current state of treatment of allergic dermatitis complicated with the secondary fungal infection, and substantiate the necessity for creating the extemporaneous ointment for the treatment of this skin pathology.

It is known that the therapy of allergic dermatitis in a general medical practice involves:

- elimination of causative allergens;
- external therapy;
- systemic pharmacotherapy;
- allergen specific immunotherapy;
- education of patients and their relatives;
- rehabilitation and prevention.

The known recommendations of doctors include measures aimed at excluding or reducing a contact with a variety of triggers, skin care (permanent cleaning and moisturizing) and the treatment of pruritus and chronic inflammation with anti-inflammatory medicines depending on the severity, localization of lesions of the skin, as well as skin infections associated with allergic dermatitis [4].

In addition, it is advisable to prescribe the sedative treatment in combination with low doses of corticosteroids gradually decreasing to patients with allergic dermatitis (Tab. 1) [5].

In addition to the systemic therapy, the topical treatment of affected areas of the skin is also recommended for patients with allergic dermatitis. The external therapy should be carried out taking into account the clinical form and stages of the disease [6, 7]. Medicinal dosage forms for external use should be applied differentially – depending on the severity and dynamics of inflammation (Tab. 2).

To analyze the existing extemporaneous formulations for the treatment of allergic dermatitis complicated with the secondary fungal infection prescriptions of various soft medicinal forms for treating allergic dermatitis approved by the Ministry of Public Health of Ukraine and described in the guidelines “Extemporaneous compounding: technology, analysis,Table 1

<table>
<thead>
<tr>
<th>Step</th>
<th>The intensity of the disease</th>
<th>Treatment characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increased dryness of the skin / mild allergic dermatitis</td>
<td>Moisturizing / skin softening, elimination of irritants, identification of specific starting factors</td>
</tr>
<tr>
<td>2</td>
<td>Mild / moderate form of allergic dermatitis</td>
<td>Topical corticosteroids and / or topical calcineurin inhibitors</td>
</tr>
<tr>
<td>3</td>
<td>Moderate / severe form of allergic dermatitis</td>
<td>Topical corticosteroids and / or topical calcineurin inhibitors</td>
</tr>
<tr>
<td>4</td>
<td>Severe allergic dermatitis</td>
<td>Systemic therapy (cyclosporine) or UV therapy</td>
</tr>
</tbody>
</table>

Ключевые слова: аллергодерматоз; грибковая инфекция; кожа; лечение

Allergic skin disease pathology is widespread in the world and in the last decade has attracted the attention of doctors. In Ukraine, 40 % of adults and children suffer from all types of al

...
“use” were studied [8]. When studying extemporaneous formulations it was found that there were many ointments used for the topical treatment of dermatological diseases at the moment. The results of this study are presented in Tab. 3.

As can be seen from Tab. 3, soft dosage forms are represented by ointments-suspensions (28.5 %), ointments-emulsions (14.3 %) and combined ointments (57.2 %). Vaseline is often used as a base of extemporaneous ointments. However, it is not the most appropriate base for the treatment of allergic dermatitis since it may aggravate the disease in persons with a sensitive skin.

According to the latest research data it is better to use emulsion bases, which provide a more complete release of medicinal substances and their high bioavailability. Soft dosage forms with such bases provide maintenance of the normal water balance of the skin, its softness and elasticity; reduce inflammation, and this is very important when treating allergic dermatitis [8].

In addition, in the compositions of extemporaneous formulations of the ointments studied there is no antifungal component. Thus, it is of great current interest to create a new combined extemporaneous ointment with the anti-allergic and antifungal action for the treatment of allergic dermatitis with the secondary fungal infection. As the active ingredients it is expedient to use a dry extract of licorice root, essential oil of lavender and terbinafine hydrochloride and as the ointment base – the emulsion base of the first type.

CONCLUSIONS

1. The modern aspects of the treatment of allergic dermatitis with the secondary fungal infection...
have been studied. The presence of anti-allergic and antifungal ointments of industrial production based on the synthetic raw material at the pharmaceutical market has been found.

2. Extemporaneous formulations of soft medicinal forms for treating allergic dermatitis approved by the Ministry of Public Health of Ukraine have been studied. The absence of antifungal components in their composition has been shown.

3. The necessity of creating a new extemporaneous ointment for the treatment of allergic dermatitis complicated with the secondary fungal infection with the complex anti-allergic and antifungal action using a dry extract of licorice root, essential oil of lavender and terbinafine hydrochloride has been substantiated.

Conflicts of Interests: authors have no conflict of interests to declare.

References


