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RESEARCH IN THE FIELD OF CREATION OF THERAPEUTIC AND PREVENTIVE PHYTOLOTION

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Annotation. The composition has been selected and the technology for producing a phytolotion for the treatment of acne has been developed. The dry polyextract "Phytoinflam", which has anti-inflammatory and wound-healing properties, was chosen as the active principle. Phytolotion according to the proposed composition, prepared compositions with different ratios of excipients were analyzed in accordance with SSt 31679-2012 "Liquid cosmetic products. General technical conditions": their full compliance has been proven. The study of stability using the natural storage method allowed us to ascertain a shelf life of 2 years.

Keywords: lotion, dry extract, chamomile, common oak, tripartite marigold, acne.

Relevance of the topic. Acne is a chronic inflammatory disease manifested by open and closed comedones and inflammatory skin lesions in the form of papules, pustules and nodules. Today, the etiology of acne is not fully understood. But androgens (dehydrotestosterone) play a significant role. Genetic factors and decreased local immunity also play a role. Stress, metabolism, gastrointestinal diseases, lipid imbalances, and poor nutrition can only aggravate existing problems, but cannot be considered causative factors. Treating acne is quite a difficult task. It is often impossible to completely cure acne, but it is possible to control the course of the disease, prevent unpleasant consequences and psychological problems that disrupt the patient's social adaptation. Treatment of this disease depends on the form and severity of the disease. But all types of treatment must be carried out systemically and externally. External therapy is prescribed to patients regardless of the severity of the patient. The vast majority (90%) of patients with acne require only topical therapy [1,2].

Objective of the study. Conduct research on the selection of composition, development of technology, the quality assessment of therapeutic and prophylactic phytolotion for the treatment of acne.

Research methods. The dry polyextract "Phytoinflam" at a concentration of 10%, developed by employees of the Tashkent Pharmaceutical Institute, with proven anti-inflammatory and wound-healing activity, as well as the absence of acute toxicity, was chosen as the active principle for selecting the composition of the phytolotion [3].

The quality of the prepared phytolotion samples was assessed in accordance with the requirements of SSt 31679-2012 "Liquid cosmetic products. General technical conditions" [4].

Researches on study the stability of the developed phytolotion were carried out using the method of natural storage at a temperature of $20\pm1^{\circ}\text{C}$. The samples of the lotion were packed in 2 types of containers: vials of glass masses with a screw neck according to SSt 34038-2016, boiled with plastic lids on Ts 22956650-03: 2015 (container 1) and polyethylenetereftalate (PET) via Ts 25486736- 01:2017, sealed with polyethylene stoppers with screw-on plastic caps according to Ts 22956650-01:2015 (container 2).

Main results: An analysis of the formulation of lotions of domestic and foreign production indicates that the main substances in the composition of lotions with therapeutic and prophylactic effects are purified water, ethyl alcohol, glycerin, substances that correct pH, color, odour, etc. We have prepared lotions for more than 10 formulations using the above excipients in various ratios and combinations. The obtained samples were analyzed by appearance and color (visually), odour (from the surface of the medicinal and cosmetic

product), volume fraction of ethyl alcohol (by gas chromatography), pH value (potentiometrically).

Considering the method of using the developed medicinal and cosmetic phytolotion, options for adding essential oil as a fragrance were considered. After analyzing the currently available assortment, the choice was made in favor of clove oil, which, in addition to its pleasant odour, also has analgesic, anti-inflammatory, antimicrobial and pronounced antibacterial properties.

Based on the results obtained, the following composition was chosen for the phytolotion for the treatment of acne:

Dry polyextract "Phytoinflam" - 10.0

Glycerin - 6.0

Salicylic acid - 1.0

Sodium tetraborate - 1.0

Ethyl alcohol - 30.0

Essential oil - 2 gtt

Purified water - up to 100.0

The phytolotion according to this composition is a homogeneous single-phase liquid without foreign impurities, brown with a reddish tint, with a volume fraction of ethanol of 41.28%, pH value - 5.03.

The results of the stability study showed the constancy of the qualitative and quantitative indicators of the developed lotion for 2 years in both types of containers used.

Conclusions. The composition has been selected and the technology for producing a medicinal and cosmetic lotion based on the dry polyextract "Phytoinflam" has been developed. The resulting lotion in terms of quality met the requirements of SSt 31679-2012 "Liquid cosmetic products. General technical conditions". The packaging container was selected and the shelf life of the phytolotion was set to 2 years.

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