

Conclusions. By microbiological researches the optimal concentration of preserving agent was selected. It ensures the microbiological purity of the suspension with silicon dioxide for the treatment of intestinal diseases.

THE DEVELOPMENT OF EXTEMPORANEOUS TOPICAL COOLING CREAM FOR THE TREATMENT OF PHOTODERMATOSIS

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Introduction. Excessive exposure to the sun is the cause of the development of many types of photodermatosis, the frequency of which increases with each passing year. Treatment of this skin pathology should be complex and include both the use of oral medicines, for example, of antihistamine action, and the use of various soft dosage forms for local therapy of the affected skin.

The **aim** of this work is to develop an extemporaneous topical cooling cream for the treatment of photodermatosis based on coconut oil.

Materials and methods. As the objects of study were used: coconut oil, white beeswax, hydrophilic solvents, various emulsifiers and stabilizers. Organoleptic, physical-chemical and microbiological properties of model cooling cream's samples were determined by the methods of State Pharmacopoeia of Ukraine.

Results and discussion. As an active pharmaceutical ingredient and hydrophobic phase of cooling cream coconut oil has been chosen. Taking into account the presence of the antibacterial properties of coconut oil, we carried out microbiological studies with the aim of choosing its optimal concentration in the composition of the studied cream. The most optimal is the concentration of coconut oil 57.5%. The choice of emulsifier was done according to the study of the density, spreadability, colloidal and thermal stability of the model cream's samples. As an optimal emulsifier polysorbate-80 in the concentration 5% has been chosen. Considering all experimental data, we have conducted research on the development of rational technology of extemporaneous topical cooling cream for the treatment of photodermatitis. To improve the stability of the cream were added white beeswax and emulsifier. Thanks to these components, it became possible to store the cream for more than 10 days. To correct the odor, rose oil is added to the cream, which rarely causes allergic reactions. The cream obtained according to the proposed technology is homogeneous, has specific pleasant odor, while color, pH 5.5-6.0.

Conclusions. The composition of extemporaneous topical cooling cream was experimentally substantiated. Based on microbiological, technological and physical-chemical researches rational technology of the proposed cooling cream was developed. The stability of the developed medicine during storage (3 months at two temperature regimens of 8-15°C and 15-25°C) was examined.

ACTUALITY OF THE DEVELOPMENT OF EXTEMPORAL DRUGS FOR THE TREATMENT OF XERODERMA

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Introduction. Changing temperature is one of the main factors on which the health and well-being of a person affects. In the human body, oxidative reactions associated with the formation of heat occur continuously. At the same time, the heat transfer to the environment also continuously occurs. The combination of processes that determine the heat exchange between the body and the environment, resulting in a body temperature maintained at approximately the same level, is called thermoregulation.

The heat transfer of the body to the environment depends on the temperature of the environment, the amount of moisture (sweat) released by the body due to the cost of heat to evaporation, the severity of the work performed and the physical condition of man. Isolation of heat occurs mainly through the skin (up to 85%) and to a lesser extent, through the lungs.

Aim. Substantiation of the expediency of creating extemporal drugs for external use for the treatment of skin xerosis.

Materials and methods. In order to select active pharmaceutical ingredients and a dosage form, an assortment of medicinal and industrial extemporal products that were used in dermatological practice for the treatment of xerosis was carried out.

Results and discussion. People can react to changes in temperature outside the body due to the presence of heat and cold skin receptors, whose response depends on the intensity of cooling, that is, the rate of change in skin temperature. At constant temperature of the skin thermoreceptors are characterized by a constant level of impulse activity, the so-called static activity, with different values of skin temperature correspond to different levels of static activity. With rapid change in skin temperature (during warming or cooling), there is a sharp change in the frequency of discharges of thermoreceptors – dynamic activity.

At present, the number of appeals to doctors regarding the pathological reactions of the skin to the influence of low temperatures and excessive solar radiation has increased. One of the common manifestations of these reactions is xeroderma (xerosis).

Xerosis is a symptom that is accompanied by dry skin. From the clinical point of view, taking into account the main etiological factors, it is possible to distinguish three main groups of causes of dry skin development: 1) violation of sebaceous secretion; 2) secondary skin dryness: the effect of external factors (cold, wind, excessive ultraviolet irradiation, reduced air humidity, high ambient temperature, prolonged stay in the room with air conditioning), the effect of chemical and cosmetic procedures or household factors (conditioned dry air, heaters and etc.); 3) Constitutive dry skin: observed in genetically predisposed skin diseases: atopic dermatitis, psoriasis, ichthyosis.

For this condition, the skin is characterized by a feeling of discomfort, often dry skin is accompanied by itching, burning, tingling, peeling, and hyperemia. All this leads to a decrease in the quality of life of the patient and, along with the specific treatment of the underlying disease, requires proper care of dry skin with the use of various softening, moisturizing agents.

The local treatment of xeroderma involves the use of softening and moisturizing agents is an essential component of basic external therapy in chronic dermatosis. It is also recommended to use antihistamines that help remove it, accompanying peeling of the skin. With strong xeroderma itching, external use of glucocorticosteroids is recommended which can significantly reduce skin inflammation and symptoms of itching. Prevent infiltration, which usually occurs due to the presence of microcracks in the skin, allow ointment based on birch tar or naphthalan. But if pathogenic microbes had already penetrated into the body, and on the skin there were crusty purulent shades, then the affected areas should be treated with antimicrobial agents.

Analyzing literary data on the state of treatment for xeroderma, one can make a disappointing conclusion: modern drugs of industrial production are not always effective, usually have a high enough cost and, most importantly, have many side effects.

Conclusions. Taking into account all of the above, one can conclude that xeroderma, which can be both an independent disease and a symptom of other pathologies, requires an integrated approach to treatment. In order for the treatment of this disease to be effective, one must take into account the peculiarities of each patient's body, the individual course of the disease, in order not to harm the health. Therefore, the development of new extemporal drugs for the treatment of xeroderma is a promising direction of modern technology.