

Aim. The purpose of our work was the development of the composition of the extemporal suspension for the treatment of acne, containing active pharmaceutical ingredients, acting on all pathogenetic links of the disease.

Materials and methods. As the objects of the study, we chose sulfur precipitated, antibiotic levomycetin, which are active against *Staphylococcus epidermidis* and *Staphylococcus aureus* by taking part in the development of the inflammatory process, salicylic acid and sulfur purified.

Sulfur acts anticeptically, antiparasitically, in small concentrations (up to 10%), sulfur acts anti-inflammatory and keratoplastically, promoting the formation of epidermal cells. In high concentrations (more than 10%) sulfur preparations dissolve epidermal cells (keratolytic action due to the formation of disulfides and hydrogen sulfide in the deep layers of the epidermis) and leads to superficial peeling of the skin. The mechanism of action of sulfur preparations is the following: while interacting with organic substances, sulfur forms sulphides and pentathionic acid, which possess antimicrobial and antiparasitic activity.

Results and discussion. Based on the results of physical and chemical studies and analysis of formulations containing the above components, the composition of the extemporal suspension for the treatment of acne was developed. Pharmaco-technological research made it possible to justify the optimal technology of the drug.

Conclusions. The development of the extemporal suspension allows to expand the assortment of local drugs for local acne therapy and improve the quality of life of people suffering from this disease.

THE RELEVANCE OF DEVELOPMENT OF ORODISPERSIBLE TABLETS WITH CINNARIZINE

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Introduction. Cinnarizine, chemically known as (*E*)-1-(Diphenylmethyl)-4-(3-phenylprop-2-enyl)piperazine, is a H₁-receptor antagonist with sedative, calcium-channel blocking and antihistamine activity. Cinnarizine may be used for the control of vestibular disorders such as tinnitus, vertigo, vomiting and nausea such as is seen in Meniere's Disease. Cinnarizine is effective in the control of travel sickness. It acts by reducing blood viscosity, anti-vasoconstrictor activity, and reducing nystagmus in labyrinth. Cinnarizine tablets are available as swallowed whole, chewed or sucked. Cinnarizine tablets 15 mg can be used by adults and children over 5 years. Children over 12 and adult take two tablets 2 hours before travelling and one tablet every 8 hours during the journey. Children aged 5–12 years take one tablet 2 hours before travelling and half a tablet every 8 hours during travel.

Aim. The relevance of the composition and technology development of orodispersible tablets with cinnarizine.

Materials and methods. Comparative, logical and systematic analyses of data generalization were used in this scientific work.

Results and discussion. Cinnarizine is widely used in the treatment of motion sickness, vomiting and vertigo. It is water insoluble and tasteless. Cinnarizine is usually well tolerated by most patients. The conventional cinnarizine tablets need to be taken several times a day during journey which results in a patient non-compliance especially for pediatric and geriatric population and the onset of action is slow. On this basis, the practical medicine needs better drug delivery system of cinnarizine for rapid effect and enhanced patient compliance. Disintegration time is an important characteristic of tablets in clinical practice. Orodispersible tablets are gaining importance among other types of tablets as they have some advantages. They are also solid unit dosage forms, which disintegrate in the mouth within 60 sec in saliva. Thus this type of tablets helps a peroral administration in geriatric and pediatric population where swallowing is a matter of trouble. Orodispersible cinnarizine tablets may provide fast relief from travel sickness due to ease in swallowing, better compliance and quick onset of action. Patients do not need water to take orodispersible tablets.

Conclusions. The results of data generalization present that orodispersible tablets technology is a practically promising way to enhance the therapeutic efficacy of cinnarizine.