

samples, their description (homogeneity), melting point, and resistance to destruction were studied. Prepared samples of suppositories according to the developed technology fully meet the requirements of State Pharmacopoeia of Ukraine to this dosage form.

Conclusions. Extemporaneous suppository technology for the treatment of hemorrhoids is improved.

SUBSTANTIATION OF GEL COMPOSITION WITH POPLAR EXTRACT AND DEXPANTHENOL FOR BURN WOUNDS TREATMENT

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Introduction. Development of drugs with active pharmaceutical ingredients (API) which are herbal substances is a promising area of modern pharmacy. The advantages of herbal remedies are their effectiveness and low toxicity, which allows for application during long time, for the prevention and treatment of many diseases with low risk of side effects. Therefore, herbal remedies are in high demand in the Ukrainian and global pharmaceutical markets, but their nomenclature and supply are lower of the growing demand.

Aim. The purpose of the work was to substantiate the gel composition containing as API poplar extract and dexpanthenol for burns treatment.

Materials and methods. Database of scientific articles and Internet resources were used for search materials. During the work, the following research methods were used: search, analytical, synthetic and descriptive. For the gel composition development, the properties of the following AFI were studied: Poplar leaf extract and dexpanthenol.

Results and discussion. A promising source of API for the gels for burn wounds treatment obtaining are representatives of the Salicaceae family, including the genus *Populus*. The buds and leaves of Poplar containing a large range of biologically active substances: flavonoids, phenologlycosides, simple phenols, essential oils, tannins, organic acids, vitamins, terpenoids and more. Extract the of Chinese poplar leaves has high antimicrobial activity against gram-positive microorganisms among other Poplars. It has a pronounced anti-inflammatory, wound healing, antibacterial, detoxifying properties. These clinical effects cause a complex effect on pathogenic mechanisms that cause infectious wound inflammation. Gels were widely used in clinical practice for the wounds treatment, and Carbopol the most prevalent gel former.

In order to speed up the healing of burns, Dexpanthenol was introduced into the gel composition. Dexpanthenol readily penetrates into the skin and mucous membranes, where it is quickly oxidized to pantothenic acid. It is also used in the biosynthesis of coenzyme A, which plays a role in a wide range of enzymatic reactions and thus in cell growth. Analysis of the literature data and previous investigations confirms its high regenerative and reparative effects.

Conclusions. Thus, according to the literature data and previous studies, Poplar leaf extract and dexpanthenol can be used for further studies in the creation of semisolid medicinal form for the burns treatment.