RESEARCHES OF THE DRUG EFIALTM

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Dosage form "spray" is one of the most advanced and modern methods of injection of drugs in the human body. The advantage of air- drip method of drug delivery (inhalation) compared to injectable and enteral methods are the possibility of direct and rapid impact on the area inflammation of mucous membranes or when fine evaporation – the bronchi and lungs [1].

Wound healing - a complex process characterized by different levels of structural organization. An important problem of modern medicine is the growth rate continued unhealed wounds. Therefore, the goal and purpose of this research is the choice of adequate treatment of wound healing, including not only physical techniques, but in most cases involves the recruitment, development and research of effective drugs [2].

At JSC "Pharmac" has developed a wound healing drug EfialTM in a dosage form of spray. As reference drug of the drug at pharmacological action was elected Solcoseril, in jelly form (Legacy Pharmaceuticals International – Switzerland). A lot of different researches were conducted on the base of this drug. Two of them were provided in this article [3].

In the beginning was investigated wound healing effect of the drug EfialTM, in dosage form of spray which consists of a concentrate deproteinised layer of the pig skin, based on peptides of 0,12 mg/ml and phosphatidyicholine of 100 mg/ml produced by JSC "Pharmac" was studied. On flat wounds model of 1 cm2 in the experiments using white rats was proved that the investigational drug Efial in spray form and the reference drug "Solcoseril" in jelly form when applied topically can show a similar regenerative healing effect. That is shown by an effective reduction of the area of the wound in all periods of observation as well as the drugs provided a similar reduction of toxemia, as it evidenced by the decrease in the permeability of the erythrocyte membrane and reduction of average - molecular peptides in blood

serum [4].

The second investigation is about the effectiveness of antimicrobial preservatives of spray "Efial". Testing the effectiveness of antimicrobial preservatives (sodium salt propylparahydroxybenzoate – 0.18 mg / ml sodium meathylparahydroxybenzoate – 1.62 mg / ml) in sprays "Efial." It is proved that the chosen preservatives ensure microbiological purity of the drug during storage at 2 to 8 ° C. To ensure proper microbiological purity of the drug during its use after opening the primary packaging, the following measures:

- introduced filtration through a filter with a pore size of 0.22 microns, which provides a necessary degree of microbiological purity of the drug;
- \bullet set the storage mode at 2 to 8 $^{\circ}$ C which is not the reproduction of microorganisms in the sample;
 - limited term use of the drug after opening up to 7 days [5].

Thus, the development of the drug helped solve the problem of wound healing. It was decided due to the development of innovative drug Efial JSC "Pharmac". The company is implementing an increasing number of highly efficient drugs and pharmaceutical industry raises Ukraine at the international level.

СПИСОК ЛІТЕРАТУРИ

- 1. Borshchevskiy G. I. Standardization of liposomal drugs / G. I. Borshchevskiy, E. K. Tovmasyan, Y. M. Krasnopolskiy, A. I. Grizodub // Farmakom. -2013.-N = 2.-P.5-11.
- 2. Shai A. Wound Healinf and Ulcer of the Skin: Springer-Verlag Berlin Heidelberg / A. Shai, H. I. Maibach. 2005. 269 p.
- 3. Borshchevskiy G.I. Development of quality indicators of liposomal preparations "EFIAL" / G. I. Borshchevskiy, T.G. Yarnykh, V.A. Konovalenko, V.N. Chabaniy // Research J. Pharm. and Tech. − 2014. № 8 (7).
- 4. Patent № 101235, Ukraine A 61 C 9/127, A 61 K 31/56, A 61 P 17/06. A process of obtaining pharmaceutical compositions for wound healing with regenerating action based on peptides of dermal layer of the pigs skin / F. I.

Zhebrovska, G. V. Kostyuk, G. I. Borshchevskiy, M. I. Borshchevskay, V. V. Bihunyak, № a 201107335; stated 10.06.2011; publ. 03.11.2013, Bull. No. 5.

5. Borshchevskiy G. I. Physical and chemical substantiation of the method for producing a multi-component liposomal drug / G. I. Borshchevskiy, T. G. Yarnykh // News of pharmacy. $-2013. - N_{\odot} 3(75). - P. 5-7.$