PHARMACOLOGICAL CORRECTION OF ATROPHIC SCARS

Isaenko D. S., Butko Ya. O.
National University of Pharmacy, Kharkiv, Ukraine isaenko.darya.1996@mail.ru

Introduction. The problem of correction of atrophic scars is gaining more and more relevance not only in cosmetology but also in dermatology, combustiology, aesthetic surgery today. Atrophic scars arise more often after severe forms of acne, difficult healing of surgical wounds, and burns. The main reason for their formation is a chronic inflammatory process. As a result, destroyed skin area is replaced by connective tissue. For the correction of atrophic scars there are a number of methods currently. For example, grinding, surgical removal, mesotherapy, microdermabrasion, chemical peels, laser correction. These methods are costly and require special equipment. Local treatment remains one of the most convenient methods for patients. The main task of local treatment of atrophic scars is to improve blood circulation, decrease inflammation and itching, prevent the possible growth of scar tissue at the site of injury, reducing the height and size of the scar and clarification it. Drugs make the scar less noticeable, softens it and removes the feeling of tightness.

Aim. The aim of this work is the analysis of assortment of pharmaceutical preparations for the topical treatment of atrophic scars.

Materials and methods. The analysis of modern pharmaceutical market of Ukraine of drugs for the treatment of atrophic scars is carried out for the feasibility of development of new domestic drugs local action. Analysis of drugs was carried out according to the following algorithm. The first is the range, the following are the manufacturer, composition, dosage form and price.

The result and discussion. The results of the analysis of the pharmaceutical market have shown that the range is limited for the local treatment of atrophic scars. Only seven registered preparations, but there is no drugs domestically produced. Foreign pharmaceutical companies produce all medications. Statistics is the next America (14,3%), the Netherlands (28,6%), Germany (42,8%), Russia (14,3%).

Drugs are presented on the market have a combined composition. Cepalin is a extract onion Cepae. It has anti-inflammatory, antibacterial action, stimulates collagen production, improves circulation. Allantoin has anti-inflammatory, antibacterial effect, improves blood circulation, has regenerative and keratolytic effect, retains moisture on the skin surface. Heparin sodium has anti-

inflammatory, antiproliferative action. Antiproliferative effect is characterized by the fact that the drug stops the growth of connective tissue cells and improving their water saturation, which is manifested in the softening of hard scar tissue. Silicone dioxide makes the scars more flat, smooth, soft, and also it has moisturizing and anti-inflammatory action. Urea moisturizes and softens the scar, and improves elasticity. Collagenase split collagen until specific amino acids, which are excreted from the body. As a result, there is a healing scar, scar tissue, and its water-electrolyte metabolism is normalized. It should be noted that drugs that stimulate epidermal type of healing are absent in Ukraine. This problem is not solved in the treatment of atrophic scars. Analysis of dosage forms showed that drugs for the treatment of atrophic scars presented ointments (14.3%), creams (28.6%) and gels (57.1%). It should be noted that gels are the most suitable dosage form. The gels created on the basis of the hydrophilic and have moisturizing and soothing effect, give the elasticity of the scar.

A comparison of the pricing policy of drugs for the treatment of atrophic scars showed that it expensive drugs. The average price of which is 740 UAH. The high cost of making these drugs inaccessible for most of the population in modern conditions of economy of Ukraine. This gives the basis for future development of domestic drugs for the treatment of atrophic scars.

Conclusion. The analysis of the preparations showed that the expansion of the range of drugs is rational and expedient in the pharmaceutical market of Ukraine. The development of domestic drugs is promising. These drugs will be more affordable for pricing. The drugs will be competitive in terms of their efficiency and price characteristics. This will ensure the availability of treatment for the population of Ukraine.