

PHARMACOLOGICAL TREATMENT AND CORRECTION OF KELOID SCARS

Chervyak S. S.

Scientific supervisor: Associate Professor,
Doctor of Pharmaceutical Sciences Butko Ia. O.
National University of Pharmacy, Kharkiv, Ukraine
chervyaksveta@mail.ru

Introduction. To date, one of the topical issues in medicine is the treatment of patients with scar deformities of the skin that can form not only as a consequence of traffic injuries or surgery, but even with the slightest skin lesions (abrasions, scratches, dermatoses). One of the types of scar deformation of the skin is a keloid scar - a tumor-like growth of the coarse fibrous connective tissue of the skin. The causes of keloids are unclear. The most likely cause of formation of keloid scars is a violation of the mechanisms of autoregulation of connective tissue: the collagen-collagenase ratio shifts towards collagen.

The incidence of keloid scars is 15% for wound healing. The tendency to keloid scars is noted in people aged 10-40 years. Old people and children are much less likely to develop keloids, as children have a more elastic skin and heal normally, while older people often develop atrophic scars.

Formed keloid scar is not dangerous for human life and health. However, being located on the open parts of the body, it can bring the owner a serious psychological discomfort. In some cases, it can restrict and restrain limb movements.

There are many therapies, but none of the methods provide a complete guarantee of the absence of keloid recurrence because the nature of keloids has not been adequately studied. Pharmacological methods of treatment of this pathology are based on the use of corticosteroids, immunomodulators and enzyme preparations that affect the formation of collagen in the rumen.

Aim. To study the direction of pharmacological treatment and correction of keloid scars.

Materials and methods. For the expediency of creating new methods and preparations for the treatment of keloid scars, the assortment of existing preparations on the pharmaceutical market of Ukraine and their pharmacological action has been studied.

Results and discussion. Most often used for the treatment of keloids drugs: for injections: «Kenalog-40" – the manufacturer KRKA (Slovenia); "Diprosan" - KRKA, Slovenia (licensed by ScheringPlough, USA); "Lydase" - "Biopharma"

(Kiev, Ukraine); "Longidaza" – NPO Petrovax Pharm (Russia); For external use are used drugs "Contractubex" – MerzPharmaGmbH & Co. KGaA (Germany); "Fermenkol" - NPK (Russia); "Dermatix" - Advance Bio-Technologies Inc. (USA).

Kenalog-40 (average price 450-600 UAH.) – the active substance is triamcinolone acetonide 40 mg. Has anti-inflammatory and immunosuppressive effect. Reduces the synthesis of collagen, reduces the concentration of inflammatory substances. Diprosan (1180-1500 UAH.) – contains betamethasone dipropionate, betamethasone sodium phosphate. Has antiallergic, immunosuppressive, anti-inflammatory effect. However, long-term use of corticosteroids can cause such side effects as: skin atrophy, slowing of regeneration, suppression of adrenal cortex function, Itzenko-Cushing syndrome, hyperglycemia, mental disorders, hypertension, etc.

Lydase (130-150 UAH.) – enzyme preparations that help reduce keloid due to the destruction of its structural components - hyaluronic acid and collagen. Longidaza (1250-1400 UAH.) Is a combination of hyaluronidase with polyoxidonium (immunomodulator).

Scars of small and medium size can be almost completely removed with the help of ointments. Contractubex (280-310 UAH) - contains sodium heparin, allantoin, extract of onion Serai. The drug with a pronounced anti-inflammatory effect has been used for many years to treat post-burn hypertrophic and keloid scars. Fermenkol (500 UAH) - consists of collagenases of animal origin, due to which it has good efficiency in the treatment of keloid scars. Dermatix (890 UAH) - contains silicone and silicon dioxide. A strong film of silicone gel on the surface of the scar promotes its occlusion. It is used for scars of varying complexity, as well as for the prevention of their formation.

Conclusions. Based on the above, we can draw conclusions: insufficient study of the causes of keloid scars leads to the search for new methods of treatment of this pathology; The range of drugs for treatment is limited and represented by foreign manufacturers; Promising will be the development and production of drugs within the country, which will reduce the cost of production.