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Stimulation of wound healing in cases of Syndrome of Diabetic Foot

N.V. Sviridov[1], M.B. Gorobeiko[2]
[1]Donetsk City Centre of Diabetic Foot of Ukraine, [2] Ukrainian Scientific and practical Centre of Endocrine Surgery Ministry of Public Health

Background: Among patients with syndrome of diabetic foot it is been noticed chronical course and characterized of absence of full-fledged granulogenesis and re-epithelization against a background of ischemia, oedema, infection, and neuropathy. In these cases healing process getting worse in al its phases: inflammation, prolipheration and re-modeling. Totality of pathologic processes on level of connective cells are base for resistance of chronical wound to standard treatment. **Material and methods**: It was used dermal equivalent (DE) for stimulation of wound healing. It consists of collagen gel and included in it allo- and auto-fibroblasts. Cultivation of cells and creation of DE were done in the laboratory of tissue and cell therapy of IERS. In study were included 36 patients with SDF. Indication for using DE were: long-term chronic wound or trophycal wound after surgical debridment at 2nd phase of healing process (28 cases), large wound surface of post-amputation stump of foot after removing of before-transplanting mummificated dermo-fatal auto-scrap (12 cases), as a stimulating method on preparing stage of early autodermoplastic of wound fields (22 cases), as a monotherapy method treatment of neuropathyc ulcers against a background non-weight bearing (14 cases). First bandaging performed after 3-4 days with measuring area of wound and estimation of wound status. **Results:** In all cases we can see intensive granulogenesis, signs of side re-epithelization, wound area in 86% cases decreased with speed 3,2-3,8% per day. The low speed of epithelization in 16 patients during 2 weeks was a criteria for re-aplication DE, after that speed of re-epithelization rapidly increased up to 2,9-3,2% a day. **Conclusion:** Using of culture of fibroblasts helps no only decreasing the term wound healing, but performing early authodermoplastic of infected wound, so it leads to more possibility of skin scrap and decreasing of their failure. Application of DE is effective method of treatment of wound in patients with syndrome of diabetic foot and this method demands further investigation for estimation of clinical value of this innovation.