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**Advanced tissue technology for wound healing in cases of Diabetic Foot Syndrome.** N.V. Svyrydov<sup>1</sup>, S.V. Bolgarska<sup>2</sup> <sup>1</sup>Donetsk City Centre of Diabetic Foot of Ukraine, <sup>2</sup> State Institution “Institute of endocrinology and metabolism”, Kyiv, Ukraine

**Background.** The final surgical treatment of diabetic foot ulcers (DFU) is a controversial question. It is been noticed chronic course wound process on the foot after surgery and characterized of absence of full-fledged granulogenesis and re-epithelization. **Material and methods.** 84 patients with Type 2 Diabetes mellitus and DFU and postoperative wounds (PW) were studied. It was used dermal equivalent (DE) for stimulation of wound healing in the main group of patients (n=48). DE 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. The group of control (36 patients) was treated by standard therapy. Indication for using DE were: long-term chronic wound or wounds after surgical debridement at 2nd phase of healing process, large wound surface of post-amputation stump of foot after removing of before-transplanting mummified dermo-fatal auto-scrap, as a stimulating method on preparing stage of early autodermoplastic of wound fields, as a monotherapy method treatment of neuropathic ulcers against a background non-weight bearing. **Results.** In DE group we gain 92% cases of intensive granulogenesis and successful autodermoplasty in comparison with control group (60% of granulations). Using of culture of fibroblasts helps to increasing the term wound healing and prevent re infection of wounds. **Conclusion.** Application of DE plus autodermoplastic is effective method of treatment of wound in patients with DFU and PW. This method demands further investigation.