[P66] THE EFFECTIVENESS OF VAC-THERAPY IN PATIENTS WITH DIABETIC FOOT

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Aim: To evaluate the efficiency of topical negative pressure wound therapy (NPWT) compared with standard therapy for the regeneration of the soft tissues of the lower extremities in patients with diabetic foot syndrome.

Materials and methods: The effects of negative pressure therapy on the clinical (size, tissue oxygenation), histological (light microscopy) aspects of repair of the soft tissue of the lower extremities in patients with diabetes mellitus were compared with those of standard treatment. Forty-eight patients with diabetic foot syndrome were included in the study from the moment of debridement until the plastic closure wound. During the perioperative period, 28 patients (I groop) received NPWT (-75 to – 120 mmHg) and 20 patients (II-control groop) received standard therapy.

Result: A reduction of the wound area (28.6%1±6.2%) and the depth of the defects (44.6±24.8%) were achieved with negative pressure therapy compared with baseline data. In the II group, the corresponding values were 23.6% 1±8.5% and 20.6%±20.4%, respectively. The result of transcutaneous oximetry showed a greater increase in the level of local hemodynamics in the study group ($p<0.04$). In the study group, 96% of patients had wounds filled with 88.2%±16% of abundant granulation tissue. The histological data of the I group show a significant reduction of oedema by 82%($p<0.05$), improved extracellular matrix organization ($p<0.05$), 90% ($p<0.05$) dissolution of inflammatory infiltrate and the formation of healthy granulation tissue ($p<0.05$).

Conclusion: The high efficiency of this method significantly reduced the time required for preparing the wound for the next surgical treatment.