NEGATIVE PRESSURE WOUND THERAPY FOR TREATMENT OF ACUTE PURULENT SOFT TISSUE DISEASES

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Aim: To assess the efficacy of negative pressure wound therapy (NPWT) in treatment of soft tissues acute purulent diseases (STAPD).

Methods: Analysis of treatment outcomes of 31 patients with extensive phlegmons and abscesses was performed. On admission all patients underwent incision and drainage of purulent focus and received empirical antibiotic therapy. On day 3 NPWT was used for the wound (experimental group: 8 males, 9 females, mean age was 51.5±4.5 years, mean baseline wound volume 315.2±70.2 cm³, bacterial contamination level was 10⁷), dressing was changed every 3-4 days, or dressings with traditional topical antiseptics were used (control: 6/8; 49.1±4.5; 315.4±91.4 cm³; 10⁷), followed by daily dressing change. Following wound decontamination and formation of granulation tissue, secondary sutures were applied.

Results: On day 7 in the experimental group, the mean wound volume was 96.5 cm³ with bacterial contamination level 10², while in the control group those were 162.1 cm³ and 10⁵, respectively. Time to applying secondary sutures in patients of the experimental group was 10.2±1.1 days, while in the control group it was 18.6±0.6 (sutures were applied in 3 patients only). Mean duration of hospital stay was 16.0±1.7 days and 21.6±1.9 days, respectively. Mean cost of treatment was EUR 1593.93 and EUR 1822.14 per patient, respectively.

Conclusion: NPWT is a clinically beneficial and cost effective method of treatment of STAPD.