NPWT DECREASES INFECTION IN WOUND: YES OR NO?

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Aim: NWPT represents a well-established method in the treatment of both chronic and acute wounds. During the 7 years we have applied this method in more than 120 cases. The benefits of NPWT are clearly demonstrable. Nevertheless, the question if NPWT should also be used on infected wounds remains open.

Methods: Infected wounds are defined as having a bacterial population size of $10^5$ colony forming units per gram of tissue. Most wounds are either "contaminated" or colonized by bacteria which are not necessarily associated with tissue invasion. Infected wounds were diagnosed clinically through the typical signs and symptoms. In the period between January 2010 and December 2013 we observed 70 patients with infected defect who were treated using NPWT. The cultivated material from the wound was collected prior application of NPWT. The control collection was taken after commence of treatment and after its termination. All collections were carried out by means of collection swabs.

Results: Prior commence of the NPWT therapy, in 70 patients there were 71% wounds with demonstrable positive cultivation finding. After start of the treatment, this percentage significantly decreased by almost a half to 40%. Nevertheless, after termination of therapy the wound infection again increased in 48% patients. The most frequent infection agent was staphylococcus aureus.

Conclusions: NPWT can be used in wide range of cases and currently represents a favourite treatment method both for the patients and the medial professionals. Our Study showed that NPWT reduces the bacterial load in wound. For this reason it can be recommended for use also in infected exudating wounds.