

Gauze-based Negative Pressure Wound Therapy (Smith&Nephew) in the treatment of diabetic infected foot ulcer

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Severe diabetic foot infection is the most serious complication of the evolution of both neuropathic and neuroischemic foot ulcers. It is generally agreed that the treatment of choice is aggressive surgical debridement with the aim of controlling local and systemic infection. Both in neuropathic and neuroischemic diseases, surgical debridement must be performed as soon as possible in order to save spread to a major part of the foot and to reduce the risk of more proximal foot amputation and major amputation. Ischemia in the diabetic population is considered an independent risk factor for major amputation and its severity is strictly correlated with the risk of failure of any surgical procedures applied on diabetic foot lesions. From February 2008 to July to 2008 we treated 34 diabetic patients suffering from severe foot infections with the VISTA system. Inclusion criteria were the presence of ulcer Class. 3- B, C or D (University of Texas Diabetic wound Classification), need for aggressive surgical debridement and good distal blood flow (Tc PO₂ • 30 mmHg before or after any revascularization procedures). Characteristics of the study population were as follow: 32 patients had Type 2 diabetes mellitus and 2 patients had Type 1 diabetes mellitus. Thirty patients were on insulin therapy while 2 patients were on oral antidiabetic therapy. Eighteen patients were female while 16 where male; mean age for both male and female groups was 64±12 years. In our study, we used a complex medical and surgical integrated approach with the primary aim of achieving a high safety and efficacy rate of limb salvage. After NPWT, 31 ulcers showed a clean wound bed with healthy vital tissue, with no signs of infection. At the end of the follow up period we observed a limb salvage rate of 97% (33 out of 34). We observed the following practice goals for NPWT in diabetic foot infection: 1) The control of local infection 2) Reduction of duration of treatment and 3) To obtain an intact and viable new dermis. Our study clearly shows that an integrated medical and surgical approach to diabetic ulcer treatment results in a high rate of limb salvage even in cases of severe, deep infection of the foot.