

**SAFETY AND EFFICACY OF A DERMAL SUBSTITUTE IN THE COVERAGE OF CANCELLOUS BONE AFTER SURGICAL DEBRIDMENT FOR SEVERE DIABETIC FOOT INFECTION**

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**Aim:** To value efficacy and safety of Dermal substitute constituted by 100% Hyaluronic Acid Benzil Esther (Hyalomatix Fab Abano Terme Italy) in coverage of bone exposition after deep debridment in diabetic foot infection infection order to perform a less severe amputation.

**Method:** From September 2006 to February 2008 24 patients were treated as follows: 7 patients submitted to open midfoot amputation (3 TMA, 5 CHOPART) 8 patients submitted to open partial calcaneotomy for heel ulcer with osteomyelitis of the os calcis, 7 patients submitted to open forefoot amputation and in 1 patient submitted to open Syme amputation. 18 out of 23 patients who presented CLI with TcP02 < 30 mmHG were submitted endoluminal revascularisation procedures. In 50% of the patients we applied NWPT therapy since the ulcers were clean. All the patients were then submitted to a second surgical look that consisted of debridement of soft tissue and exposition of bleeding cancellous bone and application of Dermal substitute to obtain complete coverage of the wounds.

**Results:** We obtained a complete coverage of the exposed cancellous bone in 21 out of 23 patients in a period of 28 ± 17 days of treatment. We followed the patients for a period of 176 ± 141 days observing complete healing of the surgical wounds in 10 out of 23 patients (4 patients treated by skin graft and 6 patients healed by secondary intention); the remaining 13 patients are healing by second intention. During the follow up period one patients were submitted to above the knee amputation due to recurrence if foot infection and severe ischemia. One patient was lost at follow up. Two patients died durin the follow up period for myocardial infarction.

**Conclusion:** This preliminary data demonstrate the safety and efficacy of this new dermal substitute in coverage of cancellous bone after wide surgical debridment for deep infection of the foot allowing to obtain a more conservative surgical procedure.