Use of Cutimed® Off-Loader Select Total Contact Cast and Advanced Wound Dressing to Treat Diabetic Foot Ulcer in the Setting of Lymphedema and Morbid Obesity

Suzie Ehmann, PT DPT CWS CLT – LANA, Clinical Coordinator of Edema Management Program
Carolinas HealthCare System – Stanly ■ Albemarle, North Carolina

Carolinas HealthCare System

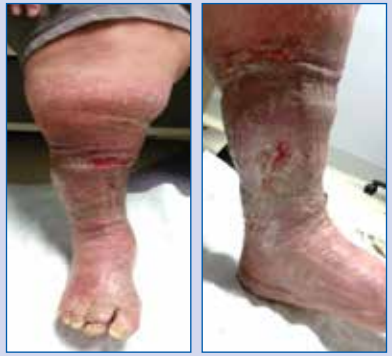
INTRODUCTION

The gold standard for the management of a diabetic foot ulcer (DFU) is the total contact cast (TCC).[1] However, there are several medical co-morbidities listed as contra-indications including fluctuating edema, obesity, and unsteady gait.[2,3] This single case study demonstrates the successful management of a DFU and venous leg ulcer (VLU) concurrently in a morbidly obese male with bilateral LE lymphedema.

METHODS

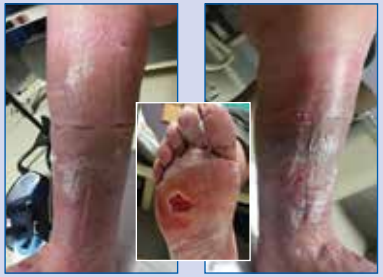
The patient is a 44-year-old, morbidly obese male who presented to the local wound care center with bilateral lower extremity (LE) pheblo-lymphedema stage III, a Wagner Grade I DFU (present for approximately one month) and VLU. Due to the patient's weight, impaired gait and LE swelling, utilization of TCC was initially deferred. Attempts to manage his LE swelling with a two-layer short stretch system was not successful and created new wounds due to the fluctuation of the swelling. After a period of one month's time, patient was referred to the Edema Management Center. Initially, the patient was seen 3x/wk for modified complete decongestive therapy (CDT) utilizing a traditional multi-component lymphedema short stretch wrap to reduce the swelling. Once the volume was stabilized, Cutimed® Off-Loader Select TCC was applied. The TCC was changed at two, five and seven days.

INITIAL PRESENTATION TO EDEMA MANAGEMENT CENTER



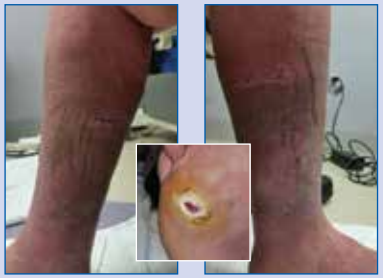
1/22/2015

LYMPHEDEMA WRAP AND LOCAL WOUND CARE



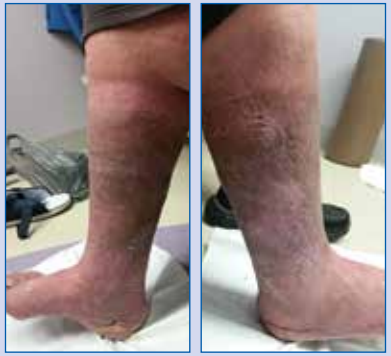
2/4/2015:
3 sessions CDT and further debridement by WCC

VOLUME STABLE – INITIATE TCC × 2 DAYS

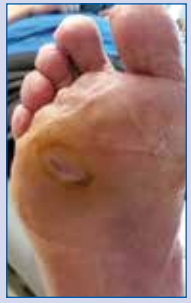


2/23/2015:
After first TCC application (day 2)

WOUND CARE



3/9/2015:
After 4 TCC applications, DFU healed



RESULTS

LE lymphedema was managed with three weeks of modified CDT, utilizing a multi-component lymphedema wrap in addition to ongoing moist wound healing. Once the volume of the limb was stabilized and the non-viable tissue had been removed from the DFU, TCC was applied. The DFU which had failed to show progress over the last four months was healed with four applications TCC along with moist wound dressings and Cutimed® Sorbact®, coated with DACC Technology. Time to heal with TCC was 15 days.

CONCLUSION

Appropriate management of LE lymphedema allowed for utilization of the gold standard DFU treatment of TCC in a previously excluded patient population.

REFERENCES

1. Cavanagh PR, Bus SA. Offloading the diabetic foot for ulcer prevention and healing. *J Vasc Surg.* 2010 Sep; 52 (3 Suppl): 37S–43S. Review
2. Pirozzi K, McGuire J, Meyr AJ. A comparison of 2 total contact cast constructs with variable body mass. *J Wound Care.* 2014 Jul; 23(7): S4, S6–12, S14
3. Pirozzi K, McGuire J, Meyr AJ. Effect of variable mass on plantar foot pressures and off loading device efficiency. *J Foot Ankle Surg.* 2014 Sep/Oct; 53 (5): 588-97.