**BACKGROUND AND PURPOSE**

The aging population and increased incidence of comorbidities constitutes the care of patients with chronic, wounds of varying etiologies including diabetic foot wounds, pressure ulcers, and wounds related to trauma. Physicians and clinicians face the challenge of healing these donor sites in a timely fashion. This involves through the healing cascade on a complex layer by layer basis. The treatment plan varies from the fact that, diabetic foot ulcers often 3.3% to 3.7% of all patients with diabetes, which frequently result in amputations. This is in turn has an impact, effect on an increased morbidity rates. Off loading to stabilize the patient in chronic wounds of the foot including diabetic, and neuropathic foot wounds. There are various methods for off loading, however, Total Contact Cast (TCC) is considered the gold standard for off loading foot wounds. This series of 5 patient cases with a total of 8 wounds provides evidence to further validate why TCC is used and should continue to be the gold standard for off loading.

**METHODS**

The patients had multiple or endurable wounds varying in shape from 8 mm to 6 cm in diameter. Each patient’s wound area was debrided and treated with various different types of wound dressings including Active Leptospermum Honey (ALH), Silver site, substrates, silver alginates, foam, hydrogels, enzymatic peeling, alginates dressings, and collagen, as well as hyperbaric oxygen. All patients were off-loading utilizing a shoe and gold leaf type of TCC.

**RESULTS**

In evaluating the outcomes, it is evident that using TCC that a direct effect on wound healing to include a significant impact on limb salvage. These 5 patients had an average of 20 days in healing, ranging from as few as 10 days to as many as 71 days. This also demonstrates that TCC is the gold standard for off loading foot wounds. Further research is suggested with a larger variance of wound etiologies, more focused dressing applications, and evaluating healing times to facilitate future validations.

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**CASE 1**

**Case Discussion:** No previous treatment of diabetes, hyperbaric oxygen, flap surgery, or wound care. The case discussed was a 62 yo male with co-morbidities of CHF, MI, hypertension, COPD, CA of L lung and Stent, and patient is a smoker. The patient presented to the wound care center with wound to the L plantar foot x 3 weeks. The wound was acquired on 11/30/11 with previous treatments of wound debridement, living skin substitutes, as well as selective debridement. Patient presented with odor with a large amount SS drainage. TX: Excisional debridement, dressings changed to ALH gel covered with ALH gel dressings. 9/11/12: Ulcer size – 0.2 cm x 1.0 cm x 0.3 cm. Wound bed is granular, small amount of periwound callus, minimal amount SS drainage. TX: Wound cleansed, new contact layer applied and covered with foam dressing, TCC initiated will follow weekly.

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