

The Use of a Medical Grade Honey Impregnated Foam Dressing to Maintain a Moist Healing Environment for the Promotion of Autolytic Debridement and for the Absorbance of Exudate in a Long-Term Care Facility

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INTRODUCTION

Wounds are not one size fits all; they require individual assessment and management for optimal wound healing. Therefore, innovative tools are needed to better manage all aspects of the wound. But first, the wound must be debrided because necrotic tissue interferes with wound healing. Medical grade honey has been shown to provide a moist wound environment that helps promote autolytic debridement of necrotic tissue. The high sugar content results in an osmotic pressure gradient that promotes autolytic debridement, where necrotic tissue is cleared away and transferred to an absorbent dressing. The management of moderate to heavy amounts of exudate with an absorptive dressing is important because the caustic elements present in exudate may be detrimental to wound healing. In this long-term care facility, sharp debridement is the preferred method for wound bed preparation, but patients present with wounds that are not amendable to sharp debridement. In a novel medical grade Manuka honey impregnated foam dressing, the honey is held immobile in hexagonal honey shaped compartments that are visible in the foam. This design ensures a moist wound environment and absorption of wound exudate for optimal moisture balance. An evaluation of a medical grade Manuka honey impregnated foam dressing* was conducted at the long term acute care facility.

METHODS

A convenience sample of 10 patients with wounds for whom sharp debridement was not an option was selected for the study, at clinician discretion. The honey impregnated foam dressing was placed on the wound and secured. Wound size was monitored over time. A visual assessment of the peri-wound area was done to monitor for signs of maceration, and the amount of necrotic tissue was also noted. An initial assessment, dressing change 0, was done, followed by assessments at each dressing change.

RESULTS

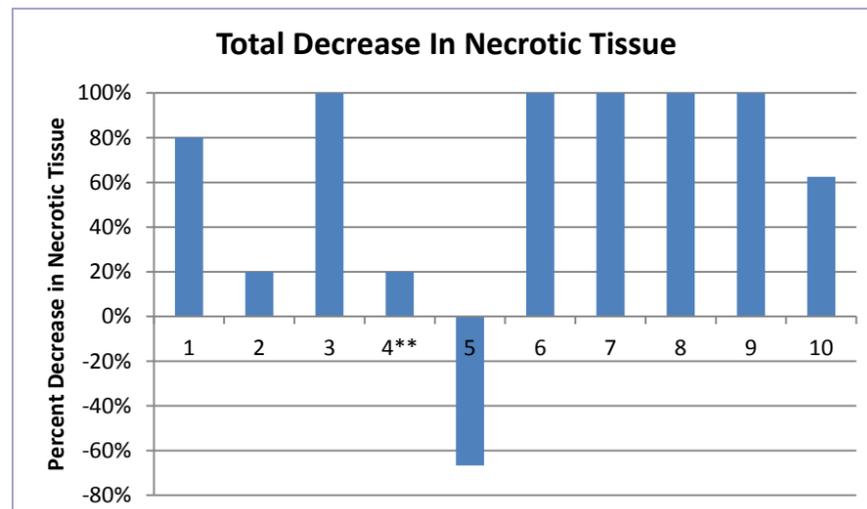


Figure 1: Total Decrease in Necrotic Tissue

** Patient was discharged

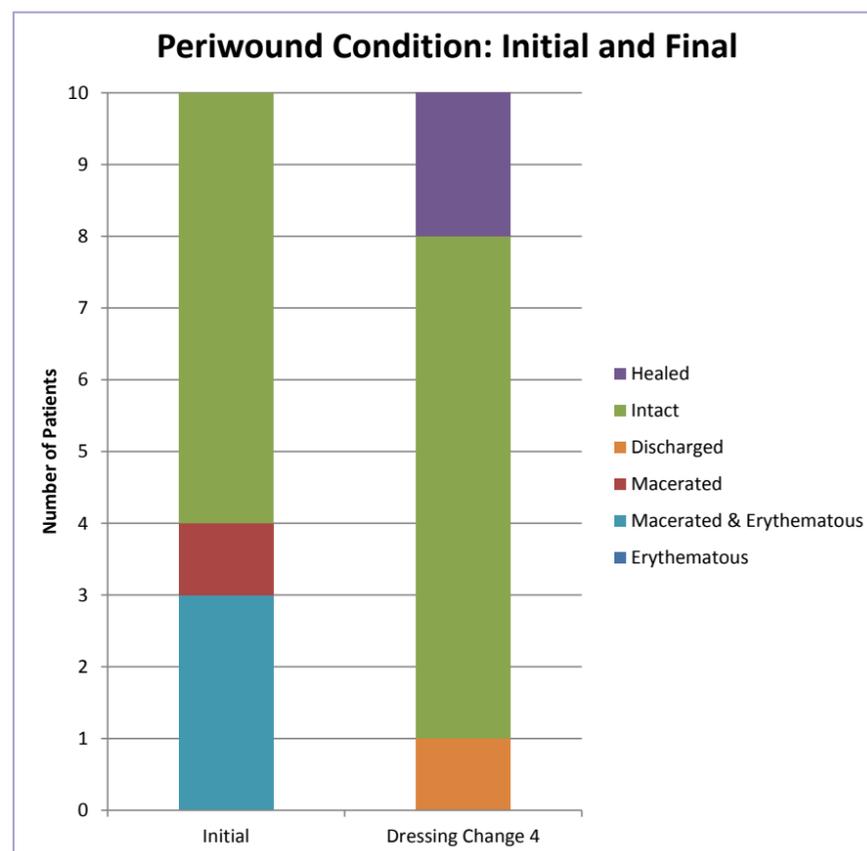


Figure 2: Periwound Condition

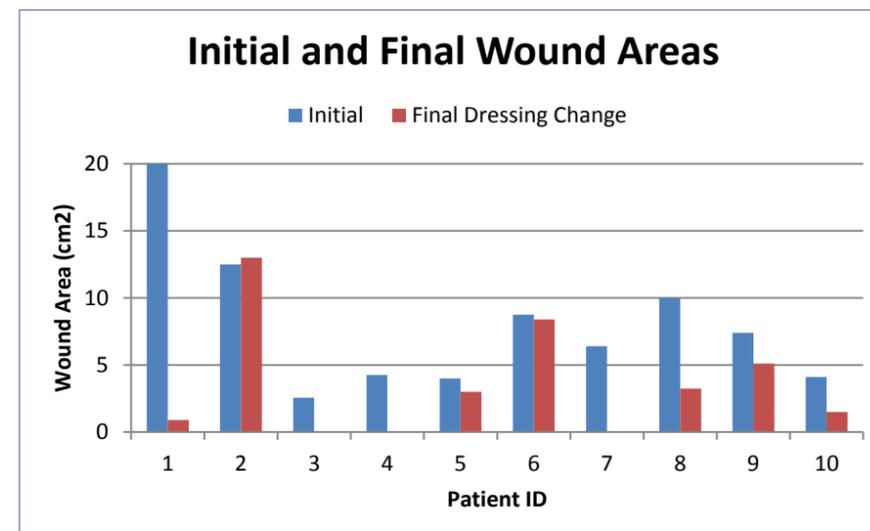


Figure 3: Wound Size Reduction

DISCUSSION

A total of 10 patients were treated with the Manuka honey impregnated foam dressing to help promote autolytic debridement by creating an optimally moist wound environment. This new dressing features 100% *Leptospermum scoparium* medical grade honey and foam combined into one. The dressing's unique design allows for dual functions. The high sugar levels result in osmotic pressure that promotes autolytic debridement to clear necrotic tissue, while simultaneously absorbing wound exudate for optimal moisture balance. The low Manuka honey pH may also help decrease the elevated chronic wound pH to help promote wound closure.

Ten patients with an average wound duration of 2.4 months were treated. Seven patients had pressure related wounds, and all patients had significant co-morbidities. Of the 10 patients, three patients presented with macerated and erythematous peri-wound skin and one patient had macerated peri-wound skin. After the first dressing change, the problem resolved, and the peri-wound skin was once again intact. By the third dressing change, each patient had intact peri-wound skin, with no further breakdown at the fourth dressing change. Five patients achieved 100% reduction in visually assessed necrotic tissue, and two patients healed at dressing changes 3 and 4. Of the wounds that did not heal during the study period, there was a trend towards wound healing. For patient 5, the amount of necrotic tissue did increase initially, but as the study progressed the amount of necrotic tissue was decreasing. Though the amount of epithelial tissue was not recorded, patient 5's wound area did decrease.

CONCLUSION

The medical grade Manuka honey impregnated foam dressing promoted a moist wound healing environment conducive to autolytic debridement while simultaneously absorbing wound exudate. All initial maceration resolved, and the dressing effectively managed wound exudate.

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*Therahoney Foam, Medline Industries, Inc., Mundelein, IL