The effectiveness of multiple debridement techniques in a case featuring extensive ulceration and necrosis to both feet

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Introduction

The patient presented at his local surgery with extensive ulceration and necrosis to both feet. These insults had occurred over a 48 hour period due to ill fitting footwear, poorly managed skin condition and an extended period in footwear without checking or cleaning the feet (while travelling overseas). The patient has Type Two Diabetes with peripheral neuropathy, is a smoker with biphasic elastic pulses in both feet. The skin was hypohidrotic and hyperkeratotic. He was referred to Eastbourne Wound Healing Centre (WHC) with a wound of 6 weeks duration that was deteriorating.

Method

Three methods of debridement were employed at different stages of the treatment process in order to maximise potential for healing:

1. Autolytic debridement with honey based dressings (Algivon® and Activon® Tube) was used between appointments in order to reduce slough, loosen necrotic tissue and reduce bioburden;

2. Conservative, sharp debridement, used to remove necrotic and hyperkeratotic tissue;

3. Mechanical debridement, when sharp methods were inappropriate, such as where there was suspected tendon or soft tissue involvement, or risk of damage to healthy tissue was too high. Off-loading was achieved by using a softcast slipper-cast device to reduce peak plantar pressures.

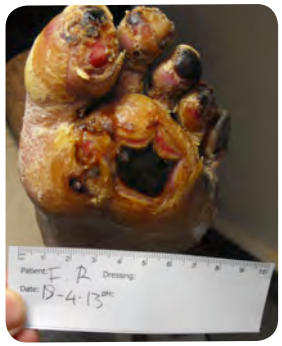
Debridement is a basic necessity to induce the functional process of tissue repair, which makes it a central medical intervention in the management of acute and chronic, non-healing wounds.

Debridement does not only refer to the removal of bioburden from the wound bed but also the liberation of wound edges as well as of peri-wound skin (Strohal, R., Apelqvist, J., Dissemond, J. et al. 2013).

Discussion & Conclusion

The patient progressed promptly to healing without complication due to appropriate choice of debridement techniques. Algivon® was used to treat the large necrotic area on the left foot. Activon® Tube was used extensively to treat toe lesions and the large sloughy ulcer remaining on the planter surface of the foot once the necrotic lesion was removed. The treatment regime was successful and the wound healed within a 16 week period. Although the diabetic foot can present with complex problems, with the appropriate treatment regime, prompt healing can be achieved.



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