



Case study: C133

L-Mesitran®

Diabetic foot

A 43 year old male patient with diabetes (not well controlled HbA1c 12) was admitted to Life Roseacres Hospital. The admission was primarily for pneumonia, but also to control his diabetes and a lower leg ulcer that was present for about 3-4 months.

The patient had been applying various natural ointments prescribed by his natural healer.

On initial assessment, the wound was covered with necrotic tissue and the lower leg was very edematous. The wound also had an offensive odour and surrounding erythema was visible, which could indicate infection⁽¹⁾. A honey based dressing was chosen, as honey has proven qualities as a debriding and antimicrobial agent.^(2,3)

Product: L-Mesitran Tulle

Case study done by: FA Bruwer, Clinical Nurse Specialist (Wound care), Germiston, Gauteng, South Africa (febeab@mweb.co.za)

Method

The wound was first cleansed using saline/(tap) water. Thereafter a honey dressing (L-Mesitran Tulle, Triticum, NL) was applied on the wound. This was covered with a 3M Tegaderm foam and then dressed with Profore 3 layer compression bandage, to apply altered compression.

The patient is diabetic and although his ABPI was measured at 0.95mmHg, the nurse decided to use the altered compression, as she believed the wound might have a mixed etiologic due to the location (lateral malleolus). The pressure of the bandage was also in inverse proportion to the circumference of the limb, thus the pressure could be higher at the ankle as this patient's circumference was about 23cm at the ankle. The nurse chose a 3 layer compression as a safer option⁽⁴⁾ in this particular case.

Results

The patient's Ankle Brachial Pressure Index (ABPI) was measured at 0.95mmHg, which is normal.^(5,6) The ABPI measurement is crucial in application of compression bandaging as it is indicative of arterial blood supply to the lower leg and will influence the choice of compression.^(5,6) Toe pressures were normal.

Dressing changes were done twice weekly for a period of 6 weeks. The wound decreased significantly in size (fig. 1-4), the smaller wound on the top right was even almost completely epithelialized. The sloughy tissue was debrided with ease and healthy granulation tissue was visible within 20 days.

Conclusion

In this case the honey-based dressing (Tulle) provided a fast and almost pain free debridement. We also observed granulation tissue formation within 20 days of the start of the treatment in this diabetes patient.



1. April 11, 2011



2. May 5, 2011



3. May 24, 2011



4. May 30, 2011

References

1. Sibbald G *et al.* (2006) Increased bacterial burden and infection: the story of NERDS and STONES. *Adv Skin Wound Care* 19:447-61
2. Kegels F (2011) Clinical evaluation of honey-based products for lower extremity wounds in a home care setting. *Wounds UK* 7(2):46-53
3. Boekema B *et al.* (2011) Evaluation of topical treatments in an in vitro burn wound model infected with *Pseudomonas aeruginosa*. *Wound Rep Regeneration* 19(5):A70-A97
4. Mulder M *et al.* (2002) Basic principles of wound care: Pearson Education South Africa
5. Leng *et al.* (1996) Use of ankle brachial pressure index to predict cardiovascular events and death: a cohort study. *BMJ* 313:1440-4
6. Burrows C, Miller R, Townsend D *et al.* (2006) Best Practice recommendations for the prevention and treatment of venous leg ulcers: update 2006. *Wound Care Canada*. 4(1):45-55