Introduction

Leg ulcer recurrence is a common problem that affects a great number of patients. It can be a highly negative experience for the patient and can result in a significant increase in nursing time. When a leg ulcer reoccurs it is important the patient seeks medical advice immediately, as the longer the ulcer is present, the greater the chance of delayed healing (Franks et al, 1995).

In this case study the author will discuss the treatment of a recurring infected leg ulcer with delayed healing.

Mr X was a 24 year old gentleman who presented to the tissue viability nurse with a trauma wound to his right shin. His initial injury occurred in March 2004 when he was blown off a pier whilst taking photos in stormy conditions. Mr X sustained a fractured tibia and fibula (compound fracture) resulting in his bones being pinned. In May 2004 Mr X was found to have misaligned pins, which resulted in their removal and replacement.

Over the following two years Mr X suffered a number of episodes of cellulitis requiring both oral and intravenous antibiotics. He was also diagnosed with osteomyelitis and returned to theatre twice for debridement of the wound and the removal of all metal work.

In December 2008 Mr X suffered a further trauma to his right shin where his previous operations had been carried out. The wound initially presented as 0.5cm x 0.5 cm. Over the following four months the wound became infected. The wound was malodorous, highly exuding, delayed in healing and painful (5/10 visual analogue scale). This infection resulted in Mr X being treated with multiple doses of oral antibiotics and analgesics.

Method

The greatest challenge to the tissue viability nurse was to manage the exudate levels and also reduce the level of bacterial bioburden. Mr X's greatest fear was the possible return to theatre for his wound to be re-opened.

Mr X was initially commenced on a hydrofibre dressing with silver; however there were no visible signs of any improvement. The treatment regime was then changed to Suprasorb® X+PHMB (Polyhexamethylene biguanide), a biosynthetic Hydrobalance fibre dressing incorporated with PHMB, a synthetic compound which is structurally similar to naturally occurring antimicrobial peptides (AMP's). An adhesive foam dressing was used as a secondary dressing.

Results

Due to the biosynthetic hydrobalance fibres within the Suprasorb® X+PHMB there was a noted improvement in exudate handling, which resulted in longer periods between dressing changes, from 2-3 days to an average of 4-5 days. Also due to the antimicrobial effects of the Suprasorb® X+PHMB Mr X did not require antibiotics and he did not need to return to theatre.

Due to the cooling effect of the Hydrobalance fibres within Suprasorb® X+PHMB, Mr X noted an immediate significant reduction in wound pain from 5/10 prior to treatment of Suprasorb® X+PHMB to 2/10 after four days and 0/10 after 13 days. This resulted in Mr X reducing the amount of analgesia he was taking.

Discussion

The use of Suprasorb® X+PHMB in a chronic recurring leg ulcer has proved highly effective in exudate handling, pain control and the reduction of bacterial bioburden.

Conclusion

This patient's wound healed after 9 weeks and Mr X is now wearing compression hosiery to prevent any further recurrence. Concordance with wearing compression hosiery has been shown to affect the rate of ulcer recurrence (Erickson et al, 1995).

The effective use of Suprasorb® X+PHMB in this case study prevented Mr X having to return to theatre, which was his greatest concern.

This was a chronic wound that was not responding to silver dressings. Dressing changes became atraumatic with the use of Suprasorb® X+PHMB and optimum healing was achieved.

References
