The management and treatment of an MRSA leg ulcer in a Raynaud’s patient

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Introduction

The management and treatment of leg ulcers in patients with underlying co-morbidities can greatly hinder the effectiveness of the chosen treatment. With this in mind management and treatment can be a long process which can be emotionally and psychologically draining for the patient. In this case study, the author will discuss the treatment of a patient with a complex, slow healing leg ulcer in a patient with underlying co-morbidities and infection.

Case study

Mrs B was a 59-year old lady who had a complex medical history including Raynaud’s disease and scleroderma pulmonary hypertension. She was under the care of a Rheumatology consultant for her Raynaud’s disease which affected her hands and feet and had had several digits amputated or lost through poor circulation.

Mrs B was a very sociable lady and, whilst on holiday, developed a wound from a new pair of walking boots that had rubbed on her right leg, causing friction to her lateral gaiter aspect.

Mrs B was referred to the wound clinic from the local hospital and care of her ulcer was transferred to the nursing team who specialised in this area.

On initial assessment and examination Mrs B presented with a venous ulcer measuring 12.52 cm circumferential with approximately 90% slough and 10% granulation. She was attending the wound clinic twice a week and having conventional dressings applied under reduced compression bandages. Mrs B’s pain score using a visual analogue scale (VAS) was 4-6 moderate pain.

Erythema was noted to the peri-wound bed and exudate levels were moderate. A wound swab was taken and an MRSA positive result was diagnosed. Mrs B was commenced on the appropriate antibiotics by her Rheumatology consultant and a silver dressing was applied to her wound. However, there were no visible signs of progress to the wound, which became 100% slough with no reduction in pain.

Patel (2007) suggests that treating MRSA infection poses a greater challenge due to the limited range of effective antibiotics that are available. This was evident in Mrs B’s wound, which was showing no sign of improvement and her fortnightly MRSA swabs were returning positive.

Mrs B and her husband were also becoming more anxious at each visit as alongside her twice weekly clinic appointments, Mrs B was still attending regular rheumatology appointments.

Method

In patients where the microcirculation is impaired, e.g. patients with Raynaud’s phenomenon, wounds are normally very painful. In these situations a moist wound dressing which can encourage angiogenesis may help to relieve this pain (Hofman, 2008).

Following the author attending a local wound care conference, Suprasorb® X+PHMB (Polyhexamethylene biguanide) was commenced under reduced compression.

Suprasorb® X+PHMB is a biosynthetic Hydrobalance fibre dressing incorporated with PHMB, a synthetic compound structurally similar to naturally occurring antimicrobial peptides (AMP’s). The HydroBalance technology allows the dressing to absorb and release moisture to the wound, as required.

Results

Due to the Hydrobalance effect of the Suprasorb® X+PHMB Mrs B found the dressing very comfortable and her pain score reduced from 4-6 moderate pain to 0-3 mild pain within three weeks.

Suprasorb® X+PHMB both absorbs and donates fluid. The dressing provided moist dressing control, was easy to remove and did not adhere to the wound surface.

Suprasorb® X+PHMB has a wide antimicrobial spectrum and reduces bacteria in infected wounds. After 7 weeks of treatment with the Suprasorb® X+PHMB Mrs B’s routine MRSA swab returned negative.

Within 14 weeks, Mrs B’s wound reduced from 90% slough and 10% granulation to 20% slough and 80% granulation. Within 17 weeks of treatment, the wound improved to 60% epithelialised, 40% granulation. Dressing changes were also reduced from twice weekly to once a week. The wound has now almost completely healed.

Discussion/Conclusion

Mrs B’s underlying conditions played a significant role in the time it took to heal her leg ulcer. However, through the use of Suprasorb® X+PHMB, this journey was made more tolerable by the reduction in pain, treatment of infection and the reduction in exudate levels. These factors resulted in less clinic appointments and improved quality of life for the patient.

References
