An Evaluation of Kendall AMD foam: A New Antimicrobial Wound Dressing

Introduction
Management of bacterial load is central to effective wound bed preparation (Schultz et al 2005), and is recognized as a major factor contributing to delayed wound healing. Antimicrobial dressings play a key role in the management of critical levels of bacteria and include silver, iodine, honey and more recently PHMB (polyhexamethylene biguanide) based products. PHMB has been used in wound care in Europe for some time and has been proven to be effective at reducing levels of bacteria and fungi (Lee et al, 2004) including pseudomonas (Cazzaniga et al, 2002) and MRSA (Wild et al 2009). Kendall AMD foam dressing containing PHMB is relatively new to the UK market and therefore a clinical evaluation was undertaken to review its effectiveness, ease of use and patient acceptability.

Methods
Five patients with longstanding non-healing ulceration, ranging from 10 months to 2 years in duration, were included. In all cases the ulceration was static at the time of inclusion, despite the use of compression therapy where indicated. Signs of increased bacterial load were present and this was thought to be responsible for the delayed healing. All had previously been treated with a various other antimicrobial dressings without significant reduction in bacterial load or ulcer size. At inclusion Kendall AMD foam dressing was commenced with either weekly or twice weekly dressing changes according to exudate levels. Compression therapy was continued where appropriate.

Patient 1 - had multiple uneven areas of spontaneous ulceration to both legs with fragile, bleeding wound beds. After only 4 weeks the ulcers had significantly reduced in size, leaving only small areas of superficial granulating wound bed. Pain levels were much reduced.

Patient 2 - presented with a 2x3cm, 0.5cm deep, sloughy ulcer to her medial malleolus, which had been static for over a year. After 8 weeks of treatment the ulcer was up to surface measuring only 1x1cm. After a further 6 weeks the ulcer was fully healed.

Patient 3 - after 7 weeks of treatment there was a reduction in wound size from 3x2cm to less than 1cm with a healthy epithelialising wound bed and minimal exudate. After a further 2 weeks the ulcer was completely healed.

Patient 4 - at inclusion had bilateral circumferential ulceration with 50% slough and 50% eschar visible to the wound beds. After 6 weeks of treatment a significant improvement was evident with a decrease in eschar and slough, reduced exudate levels with signs of advancing wounds edges. The patient reported his pain levels were also reduced.

Patient 5 - presented with a non-healing forefoot amputation site, which had shown no signs of improvement for the last 3 months, Kendall AMD foam was started. At review in clinic 8 weeks later the wound had reduced in size, there was no further evidence of colonisation, exudate levels were diminished and pain had decreased.

Discussion
Within 8 weeks of treatment significant reduction in wound surface area was seen in all cases despite the longstanding static nature of the ulceration. All patients reported improvements in relation to pain, exudate levels and the sense of optimism as progress was being made after a period of stasis. The dressing was considered comfortable and well tolerated, with no pain reported on application or removal. The authors recognise that the methodology of this research is relatively poor and further rigorous studies are required to truly elevate the effectiveness of Kendall AMD foam.

Conclusion
Kendall AMD foam was able to reduce bacterial load at the wound bed, allowing healing to take place. Kendall AMD foam can be considered a valuable asset in the management of critically colonised/infected ulceration.

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