

Using Zorflex® VB-K for the management of chronic venous leg ulcers

Kendal Lymphology Centre

INTRODUCTION

Mr A, a 92 year-old gentleman with limited mobility, was referred to the Kendal Lymphology Centre (KLC) with extensive, circumferential venous leg ulcers with associated chronic oedema, malodorous exudate and extensive cellulitis. Surgical intervention had been refused.

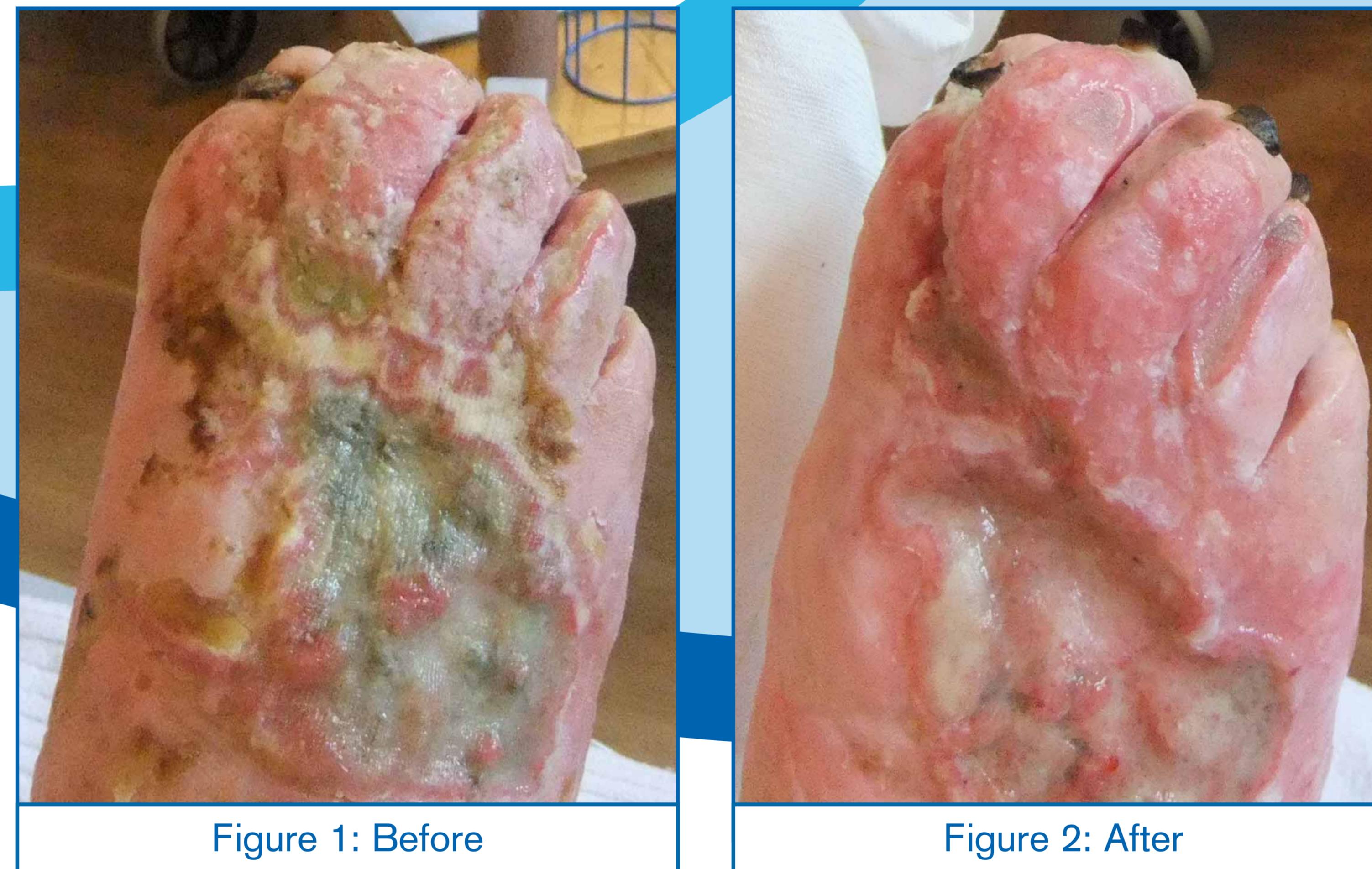
Previous long-term compression bandaging (base of toe to knee) by community teams had compounded the problem, resulting in displaced oedema with extremely oedematous/excoriated toes and swelling from beyond the knees to the mid-thigh. Bandages, clothing, footwear and bed linen were constantly saturated and the patient was most uncomfortable.

INITIAL MANAGEMENT

To manage the situation more effectively, the 4-layer compression bandaging was changed to a 2-layer system extending from the digits to the thigh. This addressed the underlying chronic oedema more consistently and helped 'normalise' the limb shape and size very quickly.

Gentle foot exercises were implemented to improve venous and lymphatic return, as it is important to complement bandaging and lessen stiffness (2). General function of the lower limbs was limited due to age and arthritic changes, and the patient relied heavily on a wheelchair. Limb elevation was therefore recommended whenever possible to prevent further oedema exacerbating the already complex wounds.

Antibiotics were instigated - successfully - to manage the underlying infection (1) and no further episodes have been reported. However wound management proved difficult despite intensive input twice weekly and regular dressing changes. After 12 months there was little significant change in the size/odour of the wounds (though lymphorrhoea was less and the patient pain free). **See Fig. 1**



INTRODUCTION OF ZORFLEX® VB-K

With the support of Chemviron Carbon the primary dressing was changed to Zorflex® VB-K, comprised of pure activated carbon cloth. Its microporous structure gives this dressing its inherently antimicrobial effect, without the use of silver. A light, breathable material, it adapts nicely to the wound bed's contours (3). Forces of attraction called 'van der Waals forces,' generated within the dressing's micropores, allow for the adsorption of bacteria and other pathogens onto the dressing surface. The forces then disrupt the bacterial cell structure, causing it to rupture, and draw endotoxins into the pore structure (5).

Its naturally antimicrobial performance means microorganisms cannot become resistant to Zorflex® VB-K, therefore it does not have to be discontinued after two weeks of treatment (5). The dressing was covered by an absorbent pad and the usual 2-layer compression bandage system (toe to thigh).

Mr A continued to attend the clinic twice weekly and at each appointment the limbs would be washed, dried carefully and the dressings re-applied.

RESULTS

After two months (8 dressing changes) notable improvement was achieved. There are areas of granulation and some of the ulcers have reduced in size. Odour has improved significantly and the ulcer bed is much cleaner now the slough is removed at each dressing change by the Zorflex® VB-K. No infections have occurred since using the dressing and the patient has not experienced any untoward reactions from using the dressing. **See Fig. 2**

DISCUSSION

Applying Zorflex® VB-K in conjunction with compression has helped turn around an extremely difficult scenario where all other primary dressings seemed to have failed. The rapid adsorption kinetics of Zorflex® VB-K allow the dressing to quickly cleanse the wound of bacteria, providing favourable conditions to begin the healing process, while preventing infection (3).

In conjunction with other therapies (compression, exercises, elevation at rest), this dressing has certainly made an impact on this patient's care and vast improvements have been noted by the clinical/vascular teams.

However, due to the age of Mr A, poor mobility and severe underlying CVI, the ulcers will take much longer to heal.

CONCLUSION

Long term management of leg ulceration, chronic oedema and lymphorrhoea can be challenging to manage. Without addressing the chronic oedema effectively, healing the wounds is difficult (4).

Appropriate education and training in the community are needed to reduce complications of long term bandaging, alongside appropriate wound assessment to select the most effective dressing to address the specific needs of individual patients.

REFERENCES

1. British Lymphology Society (2015) *Consensus Document on the Management of Cellulitis in Lymphoedema* [online] last accessed on 12/8/15 at URL www.thebls.com
2. Linnitt, N. (2011) Compression hosiery versus bandaging for chronic oedema, *Nursing and Residential Care* Vol 13, No.4 pp183-185
3. Chemviron Carbon Zorflex® Activated Cloth [online] last accessed 11/8/15 at www.calgoncarbon.com/wp-content/uploads/2015/08/Zorflex®-ACC-Brochure.pdf
4. Williams, A. (2009) Chronic oedema in patients with CVI and ulceration of the lower limb *British Journal of Community Nursing* 14(10): S4 6-8
5. Chemviron Carbon (2015) *Clinical Focus Zorflex® VB-K antimicrobial wound dressings Iss.1* [online] last accessed 14/8/15 at URL www.calgoncarbon.com/wp-content/.../Zorflex®-VBK-Wound-Dressing.pdf