

THE EFFECTIVENESS OF FLAMINAL® IN THE TREATMENT OF CHRONIC DIABETIC WOUNDS.

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Introduction

Venous ulceration is the most common type of leg ulceration and a significant clinical problem, affecting approximately 1% of the population and 3% of people over 80 years of age.¹ Leg ulcers are defined as chronic if they show no tendency to heal after 3 months of appropriate treatment or are still not fully healed at 12 months.² Unlike other chronic wounds, the development and progression of a diabetic foot ulcer is often complicated by wide-ranging diabetic changes and can rapidly deteriorate, leading to amputation of the affected limb.³ The Saudi National Diabetes Registry found an overall prevalence of diabetic foot complications of 3.3% in their diabetic population > 25 years of age with an amputation prevalence of 1% (n=62,681).⁴ It has been suggested that up to 85% of amputations can be avoided when an effective care plan is adopted.³

Two case studies detail the use of Flaminal® (Flen Health) in the treatment of two chronic wounds in patients with diabetes, a venous leg ulcer and a diabetic foot ulcer, in Riyadh, Saudi Arabia.

The first case study discusses a 52-year-old woman with morbid obesity who was confined to bed. She had a chronic leg ulcer on her right leg of 8 months duration, for which she had previously undergone surgical debridement. Her previous medical history included a deep vein thrombosis, pulmonary embolism, hypertension, and diabetes mellitus. On presentation, she had a necrotic ulcer which measured 21cm (length) x 4cm (width) x 4 cm (depth) (fig 1).

The second case involved an inactive 82-year-old man. He had a medical history of diabetes and a previous ischaemic ulcer on the heel of the left foot. On presentation he had an ischaemic foot ulcer on the heel of his left foot for the last 3 months, which had arisen following a ruptured bullous due to high pressure being placed on the heel. He had a necrotic ulcer containing sloughy tissue with odour and a low exudate level. The size of the wound was 8cm (length) x 4.5cm (width) x 1cm (depth) (fig 2).

Method

The same treatment rules apply to the local treatment of diabetic foot ulcer as in chronic venous ulceration.² The treatment plan for both cases in this evaluation was to debride the wound, reduce infection, and manage the wound exudate in line with clinical guidelines.^{1,3}

In the first case study this was to be combined with offloading and nutrition. The second case also included offloading by using a DH Offloading Walker (Össur, Iceland), systemic antibiotics based on swab cultures, and control of glycated haemoglobin (HbA1C) levels. Flaminal® Forte was chosen as the primary dressing with a secondary absorbent dressing to assist in managing exudate levels.

References

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Figure 1



Figure 2



Figure 3



Figure 4

Results

In the first study the aims of treatment were achieved after 8 weeks (fig 3). In the second case the product provided a good moist environment, protected the edges of the wound, and accelerated healing time (fig 4). The patient had less pain whilst removing the dressing and the dressing helped to decrease the frequency of the dressing change as well as being cost effective.

Discussion

Debridement refers to deeply removing adherent, dead or contaminated tissue from a wound with the aim of promoting wound healing. Debridement is an important part of the TIME strategy for treatment of chronic wounds: tissue debridement, control of infection and inflammation, moisture imbalance, and advancement of the epithelial edge of the wound.¹ Flaminal® contains an alginate, enzymes, and was chosen due to its proven abilities for bioburden control, creation of a moist environment, and promotion of autolytic debridement: a unique combination that is appropriate for many chronic wounds. Indeed, its antibacterial and anti-inflammatory activity have been demonstrated in vitro and its effectiveness on chronic wounds has been shown in vivo.³ One open-label case series in patients treated with Flaminal for up to 60 days detailed the effective management of 7 patients with diabetic foot ulcers and 16 patients with chronic wounds (n=23). The chronic wounds had not responded to several other wound care products prior to the evaluation, but 9/16 healed by day 60 and in all patient groups pain scores reduced over time.⁵

Conclusion

Two chronic diabetic wounds, which had failed to respond to previous treatment, demonstrate the effectiveness of Flaminal® in assisting wound healing. Flaminal's multiple modes of action avoid the need for more than one product by absorbing excess exudate while remaining in a gelled state, promoting debridement, and controlling bioburden.