

FLAMINAL® IN THE MANAGEMENT OF A DIABETIC FOOT ULCER

Lesley Weaving, Diabetes Lead Podiatrist, North West Podiatry Services
Community Health Services Division, Leicestershire Partnership Trust

Introduction

In the UK 5-7% of people with diabetes currently have, or have had a diabetic foot ulcer (DFU).¹ Globally approximately 451 million adults have diabetes, a figure anticipated to increase to 693 million worldwide by 2045² Since around 54% of DFUs become infected and overall about 20% of patients with an infected foot wound will undergo a lower extremity amputation³; their optimal management is crucial to a good outcome. Importantly, DFUs are known to have a significant impact on quality of life.⁴

This case study describes the management of Frank; a 63 year old married man with a history of hypertension and diabetes who developed an ulcer on the dorsal aspect of his right great toe. His mobility is limited following an infection in his hip joint and he is largely confined to a wheelchair. Frank has peripheral neuropathy, foot deformity and peripheral arterial disease (PAD) as well as a history of foot ulceration, with the current ulcer being present for several months; he also has osteoporosis and a long history of smoking.

Method

Frank had a moderately exuding ulcer measuring 4mm x 1mm (with a fissure like appearance) on the affected toe, which was swollen, sausage-shaped and pink with the ability of probing the ulcer to bone, (both potential indicators of osteomyelitis)⁵. Frank had been assessed by the MDT, to address not only the initial infection, but also the associated complexities of diabetes foot ulceration. Frank was commenced on antibiotics and appropriate footwear organised to ensure no pressure on his great toe.

Flaminal® Forte (Flen Health), an Enzyme Alginogel® with a higher proportion of alginate than its Hydro sister, was selected to enable penetration into the fissure down to the base, thus promoting wound healing from the base of the wound. It was important that the wound bioburden was reduced and the exudate controlled; a dry non-adhesive secondary dressing was utilised. This simple dressing regimen meant that Frank's wife was able to renew his dressings alternate days, or as necessary in between clinic visits.

Results

There was a marked improvement with the new dressing regimen within two weeks, the ulcerated area no longer probed to bone and the exudate had markedly reduced. After a further two weeks Frank's wound had healed.

Day 1



30 days



Discussion

The lifetime risk for an individual with diabetes developing a foot ulcer is 25%, with up to 85% of all lower limb amputations in diabetes preceded by foot ulceration⁶. Peripheral neuropathy and peripheral arterial disease (PAD) (or both) play a pivotal role with DFUs commonly classed as: Neuropathic; Ischaemic; or Neuroischaemic.

Flaminal® with its alginate polymers and enzymes (glucose oxidase and lactoperoxidase), has a proven broad-spectrum antibacterial activity⁷ thereby helping to control bioburden whilst absorbing exudate. The emphasis in wound care for DFUs is repeated debridement, frequent inspection and bacterial control and careful moisture balance to prevent maceration; ⁸ Flaminal® enabled this to happen.

Conclusion

Because Flaminal® can be utilised in sinuses and fissures the base of the wound (by bone) could be accessed ensuring that the ulcerated area was able to heal from the bottom and the risk of further pockets of infection developing minimised. Frank had already had the ulcer for eight weeks and the frequent visits to the clinic were challenging as his wife worked full time. The revised simple and effective dressing regimen enabled Frank's wife to change the dressing at a time to suit them both combined with accelerated healing.

References

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