FLAMINAL® FOR THE CONTROL OF PAIN AND WOUND BIOBURDEN IN THE MANAGEMENT OF A PATIENT WITH HETEROTOPIC OSSIFICATION

Tanya Brandon, Wendy Fraser. NHS Scotland (St John's Hospital), Out Patients Department 2, LIVINGSTON, West Lothian, EH54 6PP
tanya.brandon@nhslothian.scot.nhs.uk. wendy.a.fraser@nhslothian.scot.nhs.uk

Introduction

This case study discusses the wound management of Florence, an 89-year-old female with heterotopic calcification to her right posterior calf. Heterotopic calcification, more commonly known as heterotopic ossification (HO) refers to the presence of bone in noncalcified soft tissues around a joint where bone normally does not exist. The formation of bone outside the endogenous skeleton leaves individuals with immobility and a diminished quality of life. This bone, termed HO can appear in patients following invasive surgeries, burns, spinal cord and other traumatic injuries.[1] Epidemiology studies have documented HO development following trauma as a significant complication in 12-25% of fractures.[2]

Figure 1

Figure 2

Figure 3

In Florence's case, HO development was linked to musculoskeletal trauma resulting from her involvement in an RTA when she was aged 4. The heterotopic bone production began in 1996, leaving Florence with residual problems ever since. She had clinically relevant symptoms including significantly decreased range of movement and chronic pain around the affected joint which negatively impacted on her ability to go out and socialise and thus her overall quality of life.

Method

Florence's current wound had been present for over 3 months, with a history of recurrent infections in the wound. During this three month period a variety of dressings had been utilised including honey and hydrogels without any progress; she was therefore referred to the Plastics team for review.

On assessment, the wound measured 2cm x 1cm x 1cm, was very painful with moderate levels of exudate (fig.1); it contained visible old calcified bone which was believed to be acting as a foreign body, reducing her immune defences and encouraging infection.[3] The treatment goals were to control Florence's pain and reduce the exudate by reducing the wound bioburden. In order to achieve these goals it was incumbent on the team to debride the dead bone.

Flaminal® (Flen Health), an enzyme alginogel®, was selected to aid debridement of the dead bone, encourage new granulation in the wound bed and in turn heal the wound. Flaminal® Forte was used in this instance, as exudate levels were moderate. This was then covered with an adherent silicone foam dressing. Dressings were renewed every 3 days for the first two weeks to enable the team to closely monitor progress.

Results

Florence found the dressing regimen to be comfortable and within 2 weeks her pain levels had reduced and the exudate was controlled, enabling Florence to resume her normal activities, thus improving her quality of life. By 12 weeks there was evident improvement in the wound bed, with debridement of the dead bone progressing (fig.2). As there was a reduction in exudate, the team changed to Flaminal® Hydro, which is indicated for lower levels of exudate. Importantly for Florence her pain had gone and there were no further episodes of infection. Flaminal® was utilised throughout the healing trajectory with her wound fully healed after 6 months(fig.3).

Discussion

Chronic wound pain is distressing and influences the patient's ability to function, and is a key component of quality of life. If not managed well pain can have a negative impact on healing, interfering with day-to-day living and quality of life. Pain is known to contribute to stress, fear, anxiety and depression.[4] One way to minimise wound pain is to use dressings that do not cause trauma or damage to the wound or peri-wound skin, as well as being pain free on removal.[5,6]

Flaminal®, has a proven broad-spectrum antibacterial activity as well as demonstrating an ability to reduce pain in both acute and chronic wounds[7] with patients stating that it was immediately soothing and less traumatic when compared to some other products which may have been utilised. Flaminal's triple mode of action avoids the need for multiple products, since it has the capability to absorb excess exudate (whilst remaining in a gelled state), promote debridement and control bioburden.[8]

Conclusion

The Plastics team considered that Flaminal® facilitated wound healing by aiding debridement of dead bone and controlling the wound bioburden in Florence's chronic wound. They found it simple to use, with importantly early control of wound exudate and Florence's pain, reducing her stress and anxiety levels, and consequently improving her quality of life.

References

1. Convente MR, Wang H, Pignolo RJ (2015) The immunological contribution to heterotopic ossification disorders. Curr Osteoporosis Rep 13: 116-124
2. Mitchell EJ, Canter J, Norris P et al (2010) The genetics of Heterotopic ossification: insight into the bone remodelling pathway. J Orthop Trauma 24 (9):530-3
3. Siddiqui AR, Bernstein JM (2010) Chronic wound infection: facts and controversies. Clinics in Dermatology 28: 519-526
4. Woo KY, Sibbald RG (2009) The improvement of wound-associated pain and healing trajectory with a comprehensive foot and leg ulcer care model. J Wound Ostomy Continence Nurs 36 (2): 184-191
5. Vuolo JC (2009) Wound-related pain: key sources and triggers. Br J Nurs 18(15): S20-S25.
6. World Union of Wound Healing Societies (WUWHS) (2007) Principles of Best Practice: Minimising pain at dressing related procedures. A consensus document. WUWHS
7. Durante CM (2012) An open label non-comparative case series on the efficacy of an enzyme alginogel. J Wound Care 21 (1): 22-28
8. Beele H, Durante C, Kerihuel JC, Rice J et al (2012) Expert consensus on a new enzyme alginogel. Wounds UK 8(1).

Flen Health
advanced skin healing