Debridement of a Necrotic Unstageable Heel Pressure Ulcer Using an Enzyme Alginogel

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Introduction

Non healing wounds place a significant burden on the Healthcare sector with an estimated 4-5% of the adult population enduring a problematic wound at any one time[2]. Devitalised tissue halts the healing continuum by not only obstructing wound contraction and increases the inflammatory response but also by providing a source of sustenance for bacteria and other pathogens[3]. Therefore debridement, removal of dead tissue, is considered a vital constituent of wound bed preparation. There are many types of debridement methods, including biological, enzymic, autolytic, mechanical and surgical or sharp debridement[4].

A pressure ulcer is deemed as localised damage to the skin and/or underlying tissue, usually over a bony prominence, resulting from sustained pressure. The damage can be present as intact skin or an open ulcer and may be very painful[1]. They are classified into four categories, with category 4 considered to be the most severe. Additionally, there are classifications of an unstageable, whereby the ulcer bed is obscured with non viable tissue and deep tissue injury which depicts an intact epidermis with underlying damage of unknown depth that simulates bruised skin.

This case study involves an 87 year old female, with a medical history of breast cancer, spinal stroke, hypertension and hypothyroidism. Consequently the patient lived in a residential care setting and was a hoist transfer who required the assistance of 2 to reposition whilst in bed. Unfortunately, the patient had previously resided in a different home where she developed an unstageable pressure ulcer to the right heel.

The patient was referred to the community District Nursing team and at the initial assessment the right heel pressure ulcer measured 5 x 4cm and was deemed unstageable; the ulcer was 100% necrotic. There was moderate levels of exudate, malodour and evidence of peri-wound maceration and erythema.

Method

The treatment aim was to achieve debridement whilst simultaneously minimising the risk of wound infection with the ultimate objective of encouraging the formation of healthy granulation tissue. Additionally, further consideration was given to the need to manage wound exudate, whilst supporting a moist wound healing environment and controlling malodour.

The District Nurses' wound management plan encompassed the use of an Enzyme Alginogel, Flaminal® Hydro, antimicrobial primary dressing which is indicated for low to moderate levels of exudate. Coupled with its antimicrobial properties, the Hydro format was selected in order to optimise a moist wound environment as it contains less alginate components than that of its counterpart Flaminal® Forte, which is indicated for the moderate to high levels on the exudate spectrum. The peri-wound skin was protected using a barrier film product with a secondary absorbent non adhesive dressing; a charcoal based dressing was also utilised for odour control. The dressings were secured using wool and a bandage and pressure relief for the heels was supported with an off loading bootee device. Dressing changes were recommended three times per week.
A varied choice of primary dressings had been trialled prior to the commencement of the Flaminal® Hydro, including hydrocolloid and iodine based products.

Result

The advised dressing regimen continued for a period of two weeks and at the end of this phase the debridement aim was achieved; the necrotic tissue had been eradicated. The wound remained infection free for the duration of the treatment plan and the Flaminal® range was continued throughout the healing continuum; Flaminal®s non-toxic components facilitates its use for an unlimited length of time. Furthermore, the patient commented on Flaminal® Hydro's soothing effect and how dressing changes had become less traumatic following its commencement. Photographs were obtained throughout the treatment period to emphasise the wound healing progression; the patient was very engaged in this process and was elated to witness the wound healing outcomes.

7th September 2020

16th September 2020

23rd September 2020

30th September 2020

Discussion

The role of debridement has been well documented and it is generally accepted that that necrotic or non viable tissue dramatically hinders wound healing. Ultimately, effective debridement supports the progressions of a wound through the healing trajectory whilst more importantly significantly improves a patients well being and quality of life[5].

Conclusion

This case study illustrates the effectiveness of Flaminal® Hydro as an antimicrobial agent, in its capacity to support the debridement process and furthermore its ability to optimise a moist wound healing environment throughout the wound management trajectory. The use of the Enzyme Alginogel, Flaminal® Hydro, primary dressing subsequently facilitated an uninterrupted successful wound healing outcome.

References

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