Management of a Type 3 Lower Leg Skin Tear using Flaminal®, an Enzyme Alginogel

Joanne Gibson, Tissue Viability Nurse, Western Health & Social Care Trust

Introduction

Skin tears are traumatic wounds caused by mechanical forces, including shear, friction, and/or blunt force resulting in separation of skin layers. Severity may vary by depth (not extending through the subcutaneous layer) and are at risk of not healing and therefore becoming a chronic wound[1]. A type 3 skin tear identifies total flap loss.

Skin tears are common across various care settings, representing an extensive 'hidden' problem[2]. Skin tears can occur anywhere on the body; however, lower limb skin tears are more likely to develop complications, particularly in individuals who also have multiple comorbidities[1].

The initial management aim of skin tears is to preserve the skin flap and maintain the surrounding tissue whenever possible. Additionally, priority should be given to reducing the risk of infection as prompt appropriate treatment will improve patient outcomes[3].

It is recommended that compression therapy should also be considered as a component of treatment for skin tears of the lower limb[1].

This case study involves a 90 year old gentleman who has a medical history of Thoracic, Abdominal and Iliac Aneurysms, Chronic Obstructive Pulmonary Disease and a previous Inguinal Hernia Repair.

Despite his advancing years, he remains active and is independently mobile with a walking aid. He resides with his wife and enjoys retired life and often drives to his local village. Unfortunately, on one of these occasions he sustained a skin tear injury to his right lower leg secondary to trauma from a car door.

He initially self-treated the pre-tibial skin tear for 3-4 weeks with an over-the-counter antiseptic cream. Upon assessment by the Tissue Viability Nurse, the injury was described as a type 3 skin tear with total flap loss, with a wound bed that consisted of 10% slough and 90% granulation tissue. The skin tear measured 4cm in length and 3cm width with a superficial depth. There were low volumes of exudate, and the surrounding skin was dry with some noted wound edge maceration. A pain assessment was completed and the patient rated his pain level as 6 out to 10.

Method

The Tissue Viability Nurses' aims were to reduce the pain experienced by the patient and facilitate wound healing. Additional consideration was given to reducing the risk of infection and managing exudate levels whilst simultaneously optimising a moist wound healing environment.

The management plan instigated by the Tissue Viability Nurse included the use of a debridement cloth, at the initial assessment, to remove debris and disturb any possible microbial colonies. A barrier film product was also applied to the peri-wound skin for preservation purposes.

Flaminal® Hydro, an enzyme Alginogel, was applied to the wound bed to a thickness of 5mm. This was selected for its ability to facilitate debridement, and by doing so, encouraging the formation of healthy granulation tissue. Additionally, consideration was undertaken in relation to the products capacity to effectively offer exudate management and most importantly in respect of its recognised antimicrobial properties. A hydrofibre secondary dressing was applied and emollient therapy was commenced to the surrounding skin of the lower limb to maintain skin integrity. The dressings were secured with wool and crepe bandages.

Unfortunately, the patient wasn't suitable for compression therapy as he was known to have short distance claudication and arterial insufficiency of the lower limb.


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Result

Flaminal® Hydro primary dressing application continued for a period of two and a half weeks, with a total of five dressing changes during this time. Despite the patients compromised vascular status, the wound had completely healed by the end of this period.

The treatment regimen was readily accepted by the patient and he commented on Flaminal®'s soothing ability and how his pain had reduced since its commencement. The twice weekly visits supported cost effectiveness of the District Nursing service, time and resources.

Discussion

Skin tears are a significant problem for patients and the clinicians who treat them. They can be painful wounds, affecting quality of life and causing distress to the patient. Skin tears may increase the likelihood of hospitalisation, and prolong hospitalisation time[1].

Conclusion

This case study highlights the antimicrobial effectiveness of Flaminal® Hydro and its ability to facilitate wound healing through debridement and by supporting an optimum moist environment through exudate management. As a consequence, dressing changes were minimised and an uninterrupted wound healing continuum was achieved.

References

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