

The Value of a Conformable Superabsorbent Dressing Under a Below-Knee Non-removable Cast in the Treatment of Exuding Diabetic Foot Ulcers

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Introduction

Diabetic foot ulcers are relatively common in the UK. It is estimated that 25% of people with diabetes will develop a DFU. ¹The occurrence of a DFU is a serious complication of diabetes, and without the correct and timely intervention, the wound can quickly deteriorate, bringing with it a risk of amputation. ² Alongside treating the underlying disease, ensuring adequate blood supply, local wound care and infection control, pressure offloading is a key component in the management of a DFU. Whilst a non-removable below knee cast is considered the gold standard in offloading, clinicians are faced with the challenge of selecting a dressing suitable for use under such casts. This case series explores the benefits of utilising a low profile, conformable, superabsorbent dressing (DryMax Super) under a cast.

Method

A single centre case series was undertaken at the Nottingham University Hospitals Foot Clinic. Three patients were selected with exuding DFU's who required exudate management and who were utilising offloading with a below knee cast. The wounds were dressed with DryMax Super superabsorbent dressing, and the cast applied. Assessments were made at baseline and each clinic visit. Wound size was measured quantitatively at each clinic visit and wound progression, periwound condition and exudate management were assessed qualitatively at each assessment. Photographs were taken to document wound changes. Various dressing performance characteristics were assessed in comparison to previously used dressings, using a scale from 'Much Better' to 'Much Worse.'

Results

Across the three case studies, DryMax Super demonstrated its ability to conform well under a cast and to effectively absorb and retain high levels of exudate between weekly cast changes. This retention of exudate facilitated a reduction in periwound maceration and strikethrough was noticeably improved.

Discussion

Whilst it is recognised that below knee casting is the gold standard in offloading for patients with a plantar DFU, selecting an appropriate dressing for use under casts poses a challenge for clinicians. Best Practice Guidelines advise that clinicians should select a dressing that is able to retain high levels of exudate between cast changes to avoid strikethrough and weakening of the cast, is not bulky, is flexible, avoids creasing, and is acceptable to the patient. Through this case series, DryMax Super was found to meet these criteria.

Conclusion

The case series demonstrates that the conformability and low profile of DryMax Super is particularly beneficial under casts allowing external offloading devices such as these to function in relieving pressure. The absorption and retention capabilities of DryMax Super allow the dressing to be left in place for up to 7 days between cast changes, reducing strikethrough and maceration. *"The conformability coupled with DryMax's high absorbency are a combination we have not found in other dressings."*

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- Alison Musgrove - Advanced Podiatrist, Diabetes.
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References: (1) Singh N, Armstrong DA, Lipsky BA. Preventing foot ulcers in patients with diabetes. *JAMA* 2005; 293: 217-28. (2) Kerr M. *Foot care for people with diabetes: the economic case for change*. NHS Diabetes, Newcastle-upon-Tyne, 2012. Available at: <http://bit.ly/xjY7FS>. Accessed March 2013.

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Case Study 1

Patient presented with a diabetic foot ulcer to right foot. The wound measured 3.4cm² and high levels of exudate were present. DryMax Super was commenced as a primary dressing, and a non-removable below knee cast applied. Within 46 days the wound healed. During the treatment period, DryMax absorbed and retained high levels of exudate between cast changes and conformed well under the cast. Maceration was reduced and wound healing facilitated.



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Case Study 2

Patient presented with right lateral plantar charcot deformity foot ulcer, with medium levels of exudate. DryMax Super was commenced as a primary dressing and a non-removable below knee cast was applied. After 42 days, exudate had reduced and a superabsorbent was no longer required. Within this period, the wound size had reduced by 22%. DryMax demonstrated the ability to absorb and retain exudate effectively between cast changes, resulting in a reduction in maceration. The conformability of DryMax was noted, along with patient satisfaction.



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Case Study 3

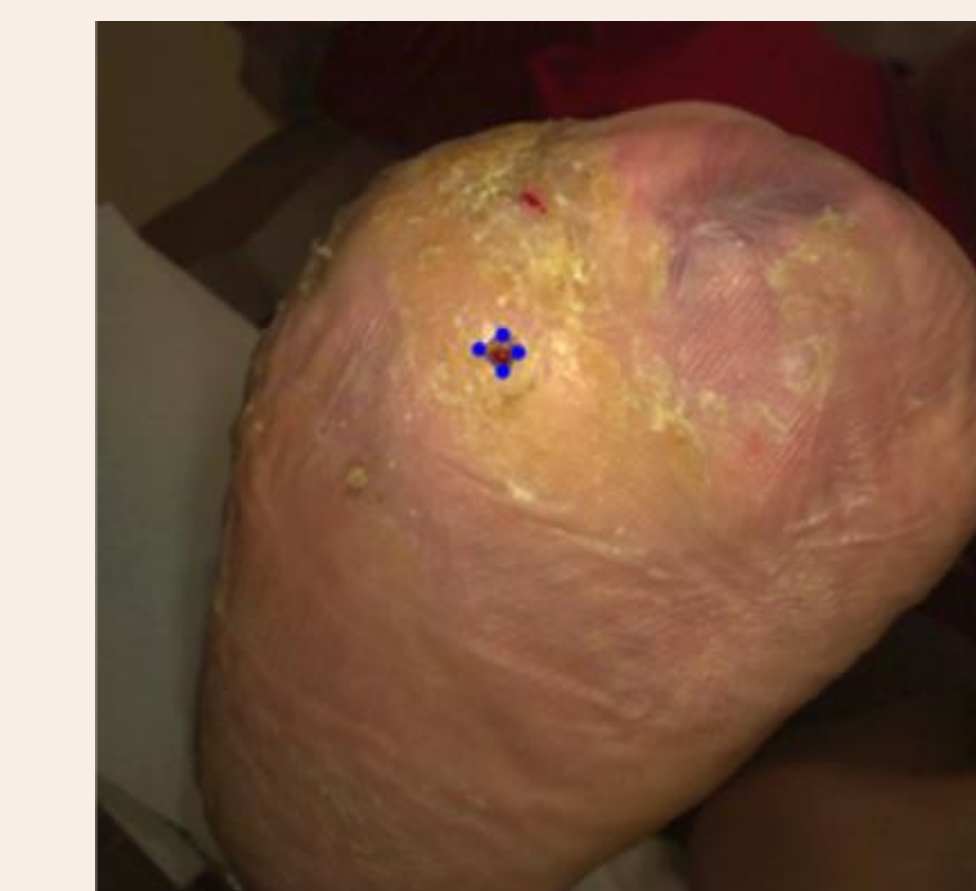
Patient presented with a diabetic foot ulcer to right foot. Medium-high exudate levels were present. DryMax Super was commenced as a primary dressing and a non-removable below knee cast was applied, with Bohler walker to further reduce pressure. During the course of treatment over a period of 6 weeks, DryMax managed exudate effectively and as a result periwound maceration was reduced.



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