

Evaluation of a chitosan dressing in the management of hard-to-heal wounds

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Abstract Introduction

It is vital that as tissue viability teams, we are constantly striving to improve service delivery, healing rates and positive patient outcomes. In 2021 the author's team were introduced to a unique bioactive microfibre gelling (BMG) dressing, MaxioCel[®], which uses chitosan to maintain a cohesive structure to increase fluid handling, antimicrobial and wound healing properties.

Method

Following Isle of Wight NHS Foundation Trust guidelines and with patient consent, 11 patients with chronic wounds of various aetiologies and wound durations were enrolled in a multicentre, clinical 4-week evaluation. Dressing changes ranged from daily to weekly depending on the wound conditions.

Results

Over a 4-week evaluation period, all patients showed a significant improvement in wound healing parameters including average tissue type, condition of periwound skin, patient comfort, exudate levels. The assessments demonstrated a significant decrease in necrotic and sloughy tissue (from >75% at the start of treatment), replaced with healthy granulation and epithelial tissue (>80% by week 4).

Significant reduction in pain score was also reported in all patients, with average pain score at the start of the evaluation reducing from 5.8 ± 2.7 to a score of 2.5 ± 1.9 within 3 weeks.

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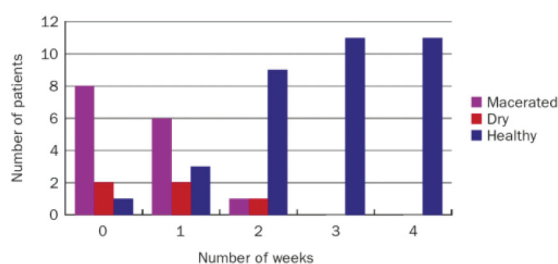


Figure 1: Periwound skin condition

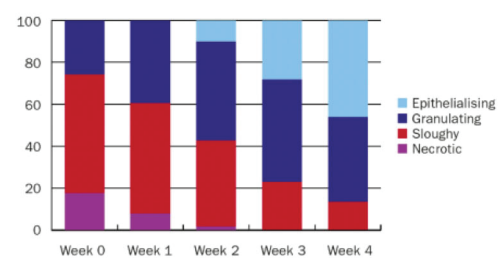


Figure 2: Tissue type in the wound over the 4-week period (average percentages)



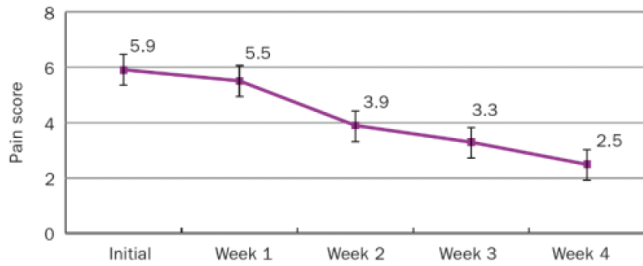


Figure 3: Average pain score over time

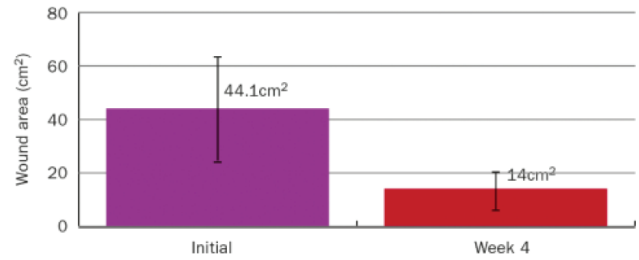


Figure 4: Average wound area reduction over the 4-week period

Conclusion

The complicated wounds seen in this study were previously non-healing and MaxioCel, with BMG technology, demonstrated both significant clinical improvement and a positive impact on patient quality of life within just 4 weeks, resulting in its addition to the team's woundcare formulary.

Read the full article, including case studies, published in the Tissue Viability Supplement of the British Journal of Nursing, February 2023,

