Clinical assessment of a foam dressing containing growth factor-enhancing hydrated polyurethanes

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Aim: Clinical assessment of a novel dressing concept containing growth-factor enhancing hydrated polyurethanes in venous leg ulcer (VLU) patients.

Methods: Patients were treated for eight weeks with a foam dressing containing a hydrated polyurethane interface plus concomitant compression therapy. Wound area reduction (WAR), percentage of wounds achieving a relative WAR of ≥40% and ≥60%, wound pain ratings for the last 24 hours and at dressing changes, EQ-5D Quality-of-Life questionnaire data.

Results: 128 patients received treatment and data for 123 wound treatment courses were documented. Wound area size decreased from 13.3±9.8cm² to 10.5±12.2cm² at week 8 and median relative WAR was 48.8%. At week 8, a relative WAR ≥40% was reached by 54.5% of the wounds, 41.5% reached a relative WAR of ≥60% and complete healing was observed in 13.5% of wounds. Median wound pain ratings (last 24 hours before dressing change) declined significantly from 30 to 15.5 (100 visual analogue scale [VAS], p=0.0001) and pain at dressing changes from 30 to 12.5 (p≤0.0001). The EQ-5D VAS rating increased from 58.4±19.2mm to 63.1±19.1mm (p=0.0059).

Conclusion: This clinical assessment shows that the concept of boosting endogenous growth factors through hydrated polyurethanes has the potential to accelerate WAR in VLU patients while decreasing pain levels and improving quality-of-life parameters.

Clinical relevance: Comparison with historical data showed that this dressing concept showed significantly better healing outcomes compared to a historical control group and similar efficacy to a corresponding foam dressing containing a pharmaceutical ingredient.

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