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**Introduction:** A hard-to-heal wound is defined as one that fails to heal with standard therapy in an orderly and timely manner<sup>(1)</sup>. Wound and ulcer healing involves a coordinated series of partly overlapping events<sup>(2)</sup>. Patients living with a non-healing wound report negative aspects affecting their life<sup>(3)</sup>. This case-study involves a 72 year old lady with a leg ulcer since January 2015 that has failed to heal or progress. The patient is a non-smoker with good nutritional status and normal weight and mobility, with a known myeloproliferative disorder requiring antimetabolite medication.



Week 1



43% reduction by Week 4

**Method:** A dressing regime using a Bioactive Beta-Glucan gel Woulgan was applied over a 12 week period in an outpatient setting. Woulgan was applied in a thin layer to the wound bed and a non-adherent wound dressing was used along with a gelling fibre dressing and super absorbent non-adhesive dressing. This was held in place by a Class 2 compression hosiery kit. Dressings were changed twice weekly and progress was photographed and measured each week.



66% reduction by Week 8



74% reduction by Week 12

**Results:** A substantial improvement and significant decrease in ulceration size was evident. By week 4 leg ulceration had decreased by 2cm in length and 1cm width (overall 43% reduction) with visible formation of a new ring of granulation tissue to outer wound edges. Week 8 revealed further decrease by another 1cm in length and width (overall 66% reduction) surface granulation appeared much improved and reduction in exudate level. Week 12 heralded a continued decrease in size now a further 1cm shorter in length and overall revealing a 74% decrease in wound size in 12 weeks. Patient experience improved with significant decrease in pain and increase in mood.

**Discussion:** The difficulty in healing this wound was centred around the patient's allergies to numerous dressings and pain associated with dressing change. Finding a dressing solution that addressed these issues was becoming increasingly challenging and negatively impacting on patient's experience and confidence.

The more complex the wound in relation to the underlying pathology and comorbidities, the greater the likelihood that the wound will be hard to heal<sup>(4)</sup>. This patient's past medical history of myeloproliferative disorder has had an impact on wound healing due to the adverse side-effects of medication used to treat the disorder.

The use of Woulgan resulted in significant improvements in wound healing but also largely reduced pain at dressing change. Woulgan has a unique formulation that activates stalled wounds and accelerates the healing process<sup>(5)</sup>. A reduction in adverse effects to skin integrity from intolerance to other dressings previously utilised was noted.

**Conclusion:** The consistency and continuity of dressing changes combined with the unique healing outcomes of using a Bioactive Beta-Glucan gel resulted in a very positive outcome for the patient. By using a gel based product, it was easy to apply and improved the patient's experience, quality of life and overall reduction in the size of the leg ulcer.

**References:**

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