

TWO CASE STUDIES TO DEMONSTRATE THE USE OF A GEL WITH BETA-GLUCAN* FOR THE TREATMENT OF STALLED WOUNDS

*Lynne Hepworth, TVN from South West Yorkshire Partnership Foundation, UK
Brenda King*, Tissue Viability Nurse and Wound Consultant, UK (*presenting author)*

Introduction

The product tested is a topical gel containing Beta-glucan for application to dry to moderately exuding wounds where healing is stalled. In addition to having typical gel properties, the product contains Beta-glucan as an ancillary medicinal substance, which is able to reactivate stalled healing by targeting white blood cells. This encourages the migration of phagocytic cells (particularly macrophages) to the wound bed and thereby promotes contraction of the wound margins and healing (granulation and epithelialisation). Two cases presenting remarkable healing results are outlined.

CASE #1

76 year old, self-sufficient single lady living alone in sheltered housing. Childhood polio left her with residual disability to shoulder, arm and hand. Mrs X has angina and is prescribed statins and aspirin. In October 2015, she had a fall and sustained a fracture of the left tibia and fibula. Following surgery, the wound became infected and was treated with a silver, fibrous absorbent dressing, followed by a disposable NPWT device, and oral antibiotics. Later, Mrs X was discharged home with disposable NPWT *in situ*. Following Doppler assessment, compression was applied.



The wound initially improved but at 4.5 months post-surgery, the wound stalled, apparently stuck in a low-grade, inflammatory phase. Treatment with a gel with Beta-glucan was initiated and applied twice during week 1 under compression. Following 2 applications of the gel with Beta-glucan, the wound had improved. The wound was then dressed weekly and had fully healed by week 6.

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CASE #2

86 year old widow living alone but with support (shopping and socialising) from her daughter. She suffers from osteoarthritis (knees, hips, ankles).

12th of November 2015 she suffered trauma to her right shin that resulted in haematoma formation.

On 8th of December the GP unsuccessfully attempted to drain the haematoma. Hydrocolloid dressing was applied but then changed to a sheet hydrogel for debridement.

3rd of January 2016 Doppler assessment indicated suitability for compression, hydrogel dressings continued. Wound was static with thick slough and the wound bed bled easily when cleaned.

On 11th February, treatment with a gel with Beta-glucan was initiated. The Beta-glucan gel and compression bandages were applied twice weekly the first week, followed by weekly dressing changes.

- Week 1 - marked improvement
- Week 7 - almost healed (small scab remained)
- Week 9 - wound healed



Week 1



Week 4



Week 7

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Method:

Two community based patients who had leg ulcers where healing had stalled, were selected.

Selection criteria included: No wound infection at assessment or steroid medication.

Both patients received compression therapy and neither patient experienced pain or an adverse event. A thin layer of the gel with Beta-glucan was applied at each dressing change.

Conclusion:

The gel with Beta-glucan has proved to be an effective dressing in two wounds where healing was stalled. The gel containing Beta-glucan debrides and accelerates healing, by modulating macrophage function and thereby promoting wound contraction and healing.

If the wound contact dressing had remained unchanged in both cases, it is anticipated that the wounds would not have healed in the quick timescale and may have remained in an inflammatory phase for weeks.

Discussion:

Chronic wounds are a huge burden on the NHS purse and present a problem for patients, including pain, low self esteem and often, social isolation.

Both patients presented in this trial had become housebound because of their injuries, and were dependant on the district nurses. In case study 1, 7 trial tubes of the gel with Beta-glucan were used, at a total cost of £140, equal to the cost of one week using PICO negative pressure wound therapy, as previously used.

In case study 2, 8 tubes of the gel containing Beta-glucan were used at a total cost of £160. This patient had already had 9 weeks of treatment with twice weekly dressing changes, prior to the trial.

***the gel with Beta-glucan is marketed as Woulgan® Gel
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