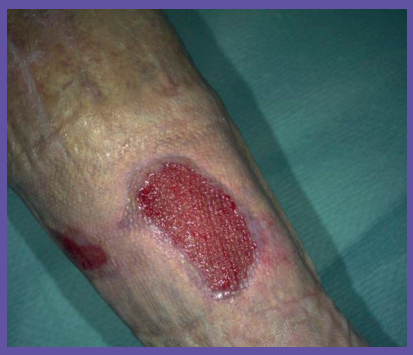
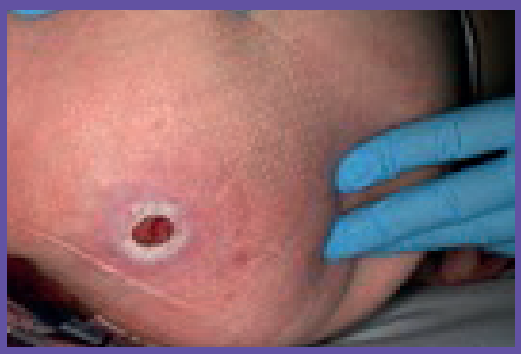
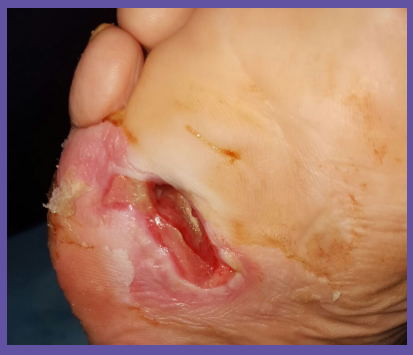
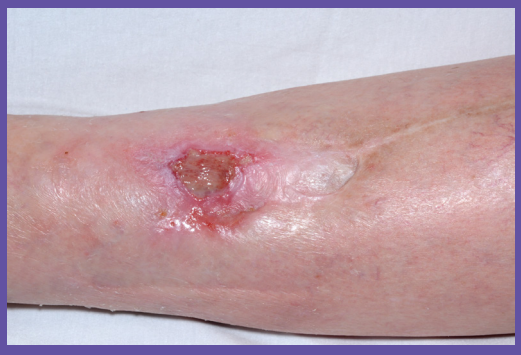
INTERNATIONAL
CASE STUDIES

Case series evaluation:
PROMOGRAN™ Protease Modulating Matrix and PROMOGRAN PRISMA™ Wound Balancing Matrix for non-healing wounds

CASE STUDIES SERIES 2016

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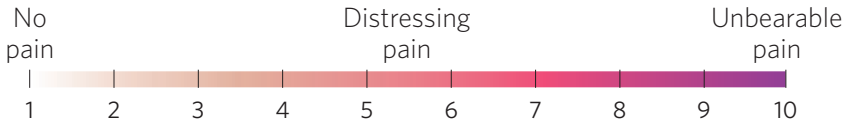
PROMOGRAN™ Protease Modulating Matrix and PROMOGRAN PRISMA™ Wound Balancing Matrix for non-healing wounds

INTRODUCTION

This document presents a series of case reports describing use of PROMOGRAN™ Matrix or PROMOGRAN PRISMA™ Matrix (Systagenix) in patients with non-healing wounds. The normal sequence of wound healing can often be compromised or prolonged, with wounds becoming stuck in a perpetual cycle of increased inflammatory response, excess protease production, and degradation of the extracellular matrix and growth factors[1]. Patients included in this case study series all had stalled wounds, which had failed to heal within the expected timeframe (i.e. 4 weeks). Patients were treated with PROMOGRAN Matrix or PROMOGRAN PRISMA Matrix for 4 weeks, or until complete healing, with secondary dressings used as necessary. A formal assessment was conducted on a weekly basis, but patients underwent dressing changes more regularly as per product labelling.

All patients were assessed for:

- Clinical signs of improvement, including wound size, wound bed tissue composition and exudate levels
- Presence of infection or signs of infection
- Quality of life improvement
- Pain levels, using a visual analogue scale (VAS) where 1 = no pain and 10 = unbearable pain.



Photographs were taken weekly in the majority of cases in order to document wound progression. Any relevant additional advice or treatments were reported, such as compression therapy, repositioning or pain relief. Dressing change time was also recorded.

COMPONENT PROPERTIES AND THEIR MODES OF ACTION

PROMOGRAN Matrix comprises a sterile, freeze-dried composite of 45% oxidised regenerated cellulose (ORC) and 55% collagen. PROMOGRAN PRISMA Matrix comprises a sterile, freeze-dried composite of 44% ORC, 55% collagen and 1% silver-ORC. Silver-ORC contains 25% w/w ionically bound silver, a well-known antimicrobial agent. The individual components of these dressings and their modes of action are outlined below.

COLLAGEN

What is it?

Collagen belongs to a family of proteins with 28 members. It is one of the most abundant organic materials in the human body and is a major constituent of skin, bone, tendons, muscles and cartilage. It has a high tensile strength and plays an important role in tissue repair[2].

What does it do?

- Collagen has a low inflammatory and antigenic response, and can help control bleeding
- Collagen enhances the deposition of new collagen fibres and acts as a substrate for cellular adhesion and migration. Collagen fragments attract cells into the wound area and induce cell growth. It is chemotactic for neutrophils, macrophages and fibroblasts
- Collagen is bio-reabsorbable and biodegradeable
- Collagen can act as a sacrificial substrate for excessive matrix metalloproteinases (MMPs)[2].

OXIDISED REGENERATED CELLULOSE

What is it?

Cellulose is the most abundant organic material on the surface of the earth and is obtained mainly from wood pulp and cotton. Oxidation makes cellulose biodegradable. ORC readily degrades through fluid absorption and subsequent gelling[3].

What does it do?

- ORC degrades in a predictable and consistent manner
- Published *in vitro* studies show ORC has no detrimental effects on cell growth, has haemostatic properties, scavenges free radicals and binds excess metal ions[2]
- ORC has bactericidal properties[4] and reduces protease activity, specifically elastase and MMPs. *In vitro* studies have shown that, with the addition of ORC to collagen, reduction in elastase activity improves from 30% (collagen only) to 100%, demonstrating that ORC is a necessary addition to collagen to address elastase activity[5].

SILVER

What is it?

Silver is a broad spectrum antimicrobial that controls bacteria, fungus, algae and yeast. Use of siver does not contribute to antibiotic resistance[6].

What does it do?

- In order to realise the benefits of silver, an optimum concentration should be utilised whereby there is antimicrobial effect but no cell toxicity
- Published *in vitro* studies have shown that collagen/ORC with silver in the form of PROMOGRAN PRISMA Matrix does not inhibit cell growth[7].

SUMMARY

This International Case Report Series presents seven case studies from Spain, Italy, Germany, Ireland and Scotland, illustrating use of PROMOGRAN Matrix and PROMOGRAN PRISMA Matrix in a range of wounds including diabetic foot wounds, leg ulcers and atypical ulcers, in a variety of settings and across various disciplines.

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CASE 1: INFLAMMATORY ULCER WITH FIBRIN DUE TO PYODERMA GANGRENOSUM

Author: Valentina Dini, Assistant Professor, Department of Dermatology, University of Pisa, Italy

INTRODUCTION

Mr. AB is a 66-year-old male who presented with a 4-month-old inflammatory ulcer with fibrin to the right lateral leg as a result of pyoderma gangrenosum, a rare skin condition that causes painful ulcers. The wound had failed to progress as expected. Previously, the wound had been treated with a Hydrofiber dressing, with twice-weekly changes each taking 5 minutes. The patient had also received corticosteroid therapy and compression.

The wound measured 4.9cm (length) x 0.3cm (depth) x 3.6cm (width) when treatment commenced (Figure 1). It comprised 100% granulation tissue and the surrounding skin was healthy. There were no signs of infection, but the wound was painful (7 out of 10 on a VAS scale) and there were moderate levels of serous exudate present.

The decision was made to use PROMOGRAN Matrix, with the intention of managing pain and progressing the wound to healing. The wound was cleansed with saline, the dressing was cut to cover the ulcer and a non-adherent silicone (ADAPTIC TOUCH™ Non-Adhering Silicone Dressing) was used as a secondary dressing. The patient continued to receive compression therapy.

Review 1: After 12 days, the wound had reduced to 3.3cm x 0.1cm x 2.2cm (Figure 2). Dressing changes had continued twice-weekly, with the matrix completely biodegrading. The wound was now less painful (3 out of 10 on a VAS scale), there were no signs of infection and exudate levels were low. The wound bed comprised 100% granulation tissue and the surrounding skin remained healthy.

The clinician and patient were both highly satisfied with treatment; in particular, the patient was pleased with the reduction in his pain levels and ulcer size. PROMOGRAN Matrix and the non-adherent silicone (ADAPTIC TOUCH™ Dressing) were reapplied, and the patient continued to receive compression therapy.

Review 2: Five days later, the wound had closed (Figure 3). The wound bed was 100% epithelialising, there was no exudate or signs of infection, and the patient had no pain. The patient and clinician were both highly satisfied, and the patient reported that his quality of life had improved.

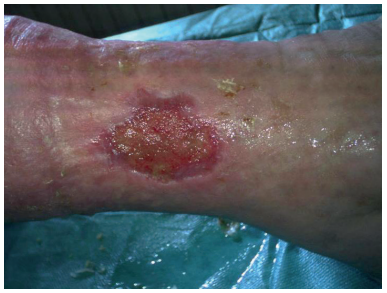


Figure 1: Baseline

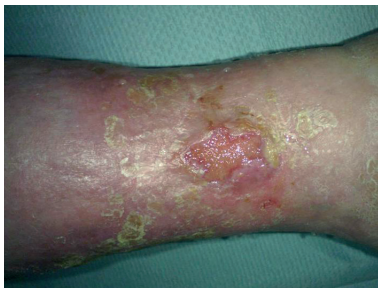


Figure 2: Review 1

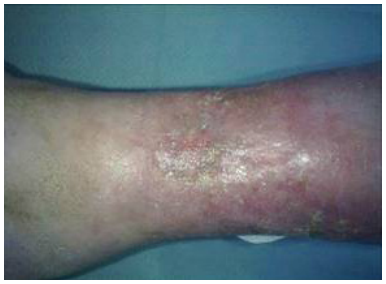


Figure 3: Review 2

CONCLUSION

The clinican reported that the wound healed in less than a month, having been present for 4 months, while area, pain and exudate levels reduced rapidly during the study period. The clinician and patient were both highly satisfied.

CASE 2: PRESSURE ULCER TO LEFT ISCHIAL TUBEROSITY

Author: Lisa Joyce, Tissue Viability Clinical Nurse Specialist,
Mater Misericordiae University Hospital, Dublin, Ireland

INTRODUCTION

Ms. ZY is a 31-year-old female with pulmonary hypertension and congenital heart disease, who had received heart and double-lung transplants, and was awaiting a kidney transplant. She was receiving immunosuppressive therapies and post-operative dialysis for end-stage kidney disease. When treatment began, she had a pressure ulcer to the left ischial tuberosity of more than 6 months' duration, which developed during an extended stay in critical care. The patient was originally referred to the tissue viability nurse 6 months before the start of this study. Previously, negative pressure wound therapy had been used twice-/thrice-weekly with 20-minute dressing changes, alongside a repositioning regime and an alternating air mattress. However, wound progression had stalled.

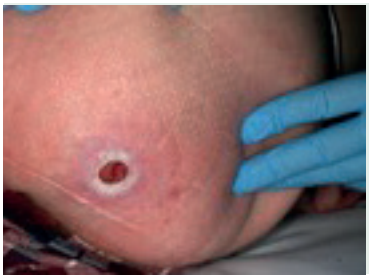


Figure 1: Baseline

At baseline, the wound was 90% granulating and 10% sloughy, with maceration at the wound edges (Figure 1). It measured: 1.2cm (length) x 2.2cm (depth) x 1.3cm (width). The wound did not require debridement before treatment and there were no signs of infection. However, heavy serosanguinous exudate was present and the patient rated her pain at 3 out of 10 (VAS scale).

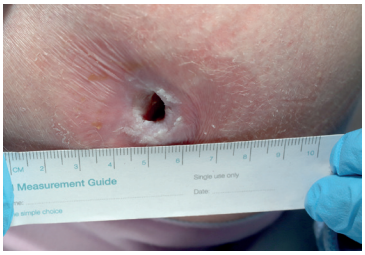


Figure 2: Review 1

Given the patient's history, comorbidities and immunocompromised state, PROMOGRAN PRISMA Matrix was selected with the intention of promoting healing. The wound was cleansed with saline, and the dressing was cut and packed loosely into the small cavity, with 'excellent' ease of application. A soft silicone (TIELLE™ Silicone Border Hydropolymer Dressing with Silicone with LIQUALOCK™ Technology) was used as a secondary dressing and the patient was advised to continue her existing repositioning regime.

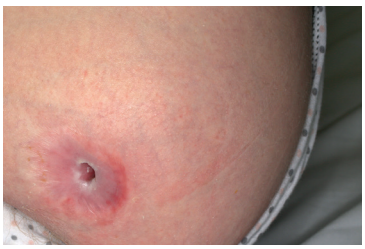


Figure 3: Review 4

Review 1: Two weeks after initiating the new treatment, the wound measured: 1cm x 2cm x 1.2cm (Figure 2). The patient had followed instructions for PROMOGRAN PRISMA Matrix, which had completely biodegraded. The patient had no pain. The wound bed comprised 10% epithelialising tissue, 80% granulation and 10% slough. Some maceration remained on the surrounding skin, although this could have been caused by the secondary dressing, which was not appropriate to manage the moderate levels of serosanguinous exudate present. The clinician was highly satisfied with treatment and the patient reported she was now able to spend hours off site after a 1-year hospital stay.

Use of PROMOGRAN PRISMA Matrix was continued due to this improvement. The wound was cleansed with normal saline and a barrier film spray was applied to the surrounding skin. The dressing was cut and packed loosely into the wound cavity, with excellent application taking about 15 minutes. The same secondary dressing was applied, along with an alternating air mattress and cushion.

Review 2: The wound was reviewed after another 2 weeks, with the dressing changed between reviews by ward staff and a public health nurse. The matrix had completely biodegraded. The wound measured: 0.8cm x 1.6cm x 1.1cm, and the patient had no pain.

There was new epithelialisation in the wound and a reduction in depth (epithelialising: 15%; granulating: 85%). Maceration had improved to the surrounding skin and serosanguinous exudate levels were moderate. The clinician and patient were both highly satisfied with treatment, with the patient spending more time at home for weekend visits.

PROMOGRAN PRISMA Matrix was reapplied due to ongoing improvement. The dressing was cut to loosely pack into the wound cavity, with 'excellent' ease of application and a change time of 10 minutes. The secondary dressing was continued along with pressure relief.

Review 3: The dressing was changed again 4 days later, and reviewed for a third time after another 5 days. Again, the wound had reduced in size, and now measured: 0.6cm x 1cm x 0.9cm. The patient continued to follow instructions for PROMOGRAN PRISMA Matrix, with the matrix completely biodegrading. The wound had new granulation tissue, there had been a further reduction in depth and the patient had no pain. The clinician and patient were highly satisfied with treatment, and the patient now had a planned discharge date, having been in hospital for over a year.

Use of PROMOGRAN PRISMA Matrix was continued due to ongoing improvement, with a reduction in the amount of dressing required. The wound was cleansed and the dressing prepared as above, with the soft silicone continued as a secondary dressing. The patient was provided with a wound care letter for discharge.

Review 4: The wound was reviewed again 1 month later (Figure 3). The dressing had been changed twice-weekly between reviews. The patient continued to follow instructions for PROMOGRAN PRISMA Matrix. The wound now measured: 0.4cm x 0.6cm x 0.6cm. There had been a reduction in maceration and new epithelial tissue was apparent (epithelialising: 40%; granulating 60%), with low levels of serous exudate present. The clinician and patient continued to be highly satisfied with treatment.

The patient was now at home with family and attending a regional hospital for dialysis. The next dressing change was planned with the public health nurse 4 days later. The patient was advised to continue her repositioning regime and monitor the wound for any pain or increased exudate.

CONCLUSION

A pressure ulcer that had been static for more than 6 months began to improve with use of the PROMOGRAN PRISMA Matrix, according to the treating clinician. The wound had not completely healed by the end of the study, but the patient had left hospital after a 1-year stay. The clinician described this as an excellent dressing, which they will consider using more often in future practice.

CASE 3: WOUND DUE TO BLISTER ON PLANTAR ASPECT OF RIGHT CHARCOT FOOT

Author: José Luis Lázaro Martínez, Head of Diabetic Foot Unit, Universidad Complutense de Madrid, Spain

INTRODUCTION

Mr. JT is a 76-year-old male with numerous comorbidities, including depression and anxiety, hypercholesterolemia, obesity and diabetes mellitus. He has a heart stent and a cardiac pacemaker, and was receiving a number of medications for his cardiac- and diabetes-related problems. He was treated for a 9-month-old wound that had occurred due to a blister on his Charcot foot (plantar aspect, right foot). The wound had previously been treated with a silver dressing and offloading with an air cast. Previous dressing changes had taken place twice-weekly, taking approximately 5 to 10 minutes per review.

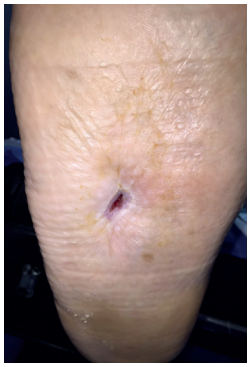
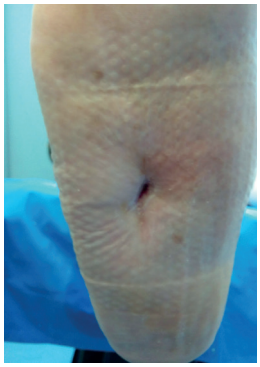


Figure 1: Baseline

At baseline, the wound measured 1.5cm (length) x 1.8cm (depth) x 0.6cm (width), with an area of 0.7cm^2 (Figure 1). The wound was 100% granulating and was showing signs of infection, including moderate exudate production and malodour. The surrounding skin was macerated and the patient rated his pain at 3 out of 10 on a VAS scale.

PROMOGRAN PRISMA Matrix was chosen due to signs of infection, with the intention of managing pain and exudate. Prior to application, the wound was cleansed and debrided. A soft silicone (TIELLE™ Silicone Border Dressing) was used as a secondary dressing and offloading was continued with an air cast.



Figures 2: Review 1

Review 1: After 1 week, the wound had reduced in size and depth, to 0.5cm x 0.5cm x 0.5cm, with an area of 0.2cm^2 (Figure 2). The wound was not painful and the wound bed was 100% granulating, with macerated surrounding skin and low exudate levels. The clinician and patient were highly satisfied with treatment, particularly the reduction to no pain.

The decision was made to continue use of PROMOGRAN PRISMA Matrix, due to reduced size, depth and pain levels. The wound was cleansed and debrided, with ease of application described as 'very good'. Offloading was continued with felted padding and an air cast.

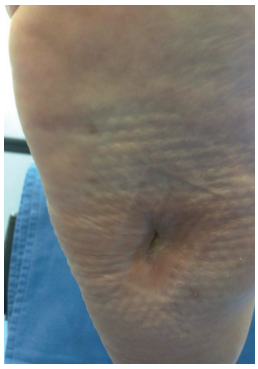


Figure 3: Review 3

Review 2: A week later, with one interim change, the patient had no pain and the wound had reduced in size, now measuring: 0.5cm x 0.2cm x 0.5cm, with an area of 0.1cm^2. The wound bed remained 100% granulating, the surrounding skin was healthy and there was no exudate or signs of infection. Both the clinician and patient were highly satisfied with treatment, and the patient reported increased physical activity and a continued lack of pain.

PROMOGRAN PRISMA Matrix was reapplied in an attempt to further reduce the size of the wound. Prior to application, the wound was cleansed and the dressing was cut to size, with ease of application described as 'excellent', taking 2 minutes. The soft silicone was reapplied as a secondary dressing, and offloading was continued with felted padding and an air cast.

Review 3: At the third review 1 week later, the wound had closed (Figure 3). There was no pain or exudate, and the surrounding skin was healthy. The clinician and patient were highly satisfied with treatment, and the PROMOGRAN PRISMA Matrix was discontinued. The patient's offloading regime was continued.

CONCLUSION

The clinician reported that the wound had completely healed. Use of PROMOGRAN PRISMA Matrix and TIELLE Silicone Border Dressing led to reduced maceration, decreased levels of exudate and increased granulation tissue across the study period.

CASE 4: ULCER TO THE FOURTH METATARSAL HEAD OF THE RIGHT FOOT

Author: José Luis Lázaro Martínez, Head of Diabetic Foot Unit, Universidad Complutense de Madrid, Spain

INTRODUCTION

Mr. ST is a 71-year-old male with a history of diabetes mellitus, diabetic neuropathy and hypercholesterolemia, being treated with various medications including metformin, lorazepam and loratadine. He had an ulcer at the fourth metatarsal head, which occurred as a result of high pressure to the plantar surface of the right foot, due to increased working hours. The wound had previously been managed with another collagen dressing, which was changed twice-weekly with an average nursing time of 5 to 10 minutes per change. The patient had also received offloading and surgical debridement.

The wound was 3 weeks old at baseline and was in poor condition, measuring 1.1cm (length) x 1.0cm (depth) x 1.0cm (width), with an area of 0.8cm^2 (Figure 1). The wound bed had started granulating and the surrounding skin was macerated. There were no signs of infection, but moderate levels of serous exudate were present. The patient reported pain of 3 out of 10 on a VAS scale.

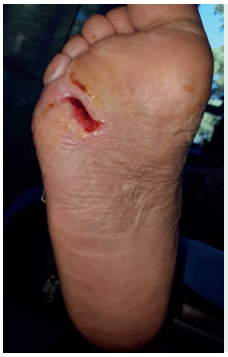


Figure 1: Baseline

PROMOGRAN Matrix was chosen to promote granulation tissue and encourage healing. Prior to treatment, the wound was cleansed and debrided; the clinician described application as 'good'. A soft silicone (TIELLE Silicone Border Dressing) was chosen as a secondary dressing, while offloading was also provided.

Review 1: After 7 days, the wound measured 1.0cm x 0.6cm x 0.6cm, with an area of 0.6cm^2 (Figure 2). The patient had followed instructions for use of PROMOGRAN Matrix, which had completely biodegraded. The wound was less painful (1 out of 10 on a VAS scale), and there had been a decrease in surrounding maceration, a decrease in size and depth, and an increase in granulation tissue. There were no signs of infection present and low levels of serous exudate.

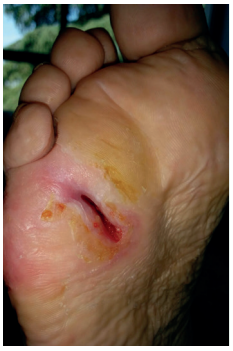


Figure 2: Review 1

The clinician was satisfied with treatment, and the patient was pleased with the effect of the dressing on his pain levels. The decision was made to continue using PROMOGRAN Matrix to increase granulation tissue. Cleansing and debridement were conducted prior to application, and the dressing was reapplied, with a dressing change time of 5 minutes.

Review 2: A week later, with one interim dressing change, granulation tissue had further increased, the skin around the wound was healthy and the patient had no pain. The ulcer area had reduced to 0.3cm^2. There were low levels of serous exudate present, with no signs of infection (Figure 3). The patient was highly satisfied with treatment, particularly in terms of pain management. The clinician was also satisfied with treatment, and the decision was made to continue using PROMOGRAN Matrix due to the promotion of granulation tissue. A new dressing was applied, with a change time of 3 minutes.

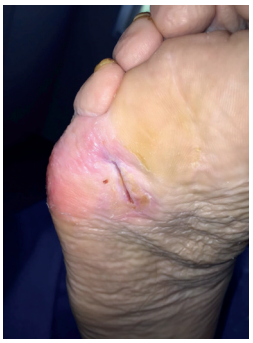


Figure 3: Review 2

Review 3: One week later, further improvements were seen: depth had reduced from baseline and there was no maceration or exudate. The wound measured 1.6cm x 0.3cm x 0.3cm, with an area of 0.2cm^2 (also a reduction from baseline). Again, granulation tissue had increased and the surrounding skin was healthy. There were no signs of infection and the patient had no pain. Both the clinician and patient were highly satisfied with PROMOGRAN Matrix, which was applied again, with a dressing change of 3 minutes.

Review 4: At the fourth review after 1 more week, the wound had closed (Figure 4). The surrounding skin was healthy, with no exudate or signs of infection. The clinician and patient were highly satisfied with treatment, and the patient reported that PROMOGRAN Matrix had improved his quality of life, allowing him to increase his activity levels. PROMOGRAN Matrix was discontinued, while offloading was continued. The patient was given a plantar orthosis and therapeutic footwear.

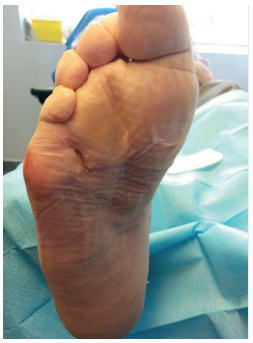


Figure 4: Review 4

CONCLUSION

Use of PROMOGRAN Matrix led to reduced exudate levels, according to the treating physician. Although the ulcer area decreased at every review, the longitudinal diameter increased discreetly across the study period, becoming a small line until complete epithelialisation. The wound had closed by the end of the study.

CASE 5: PRE-TIBIAL LACERATION TO LOWER LEFT LEG

Author: Tanya Brandon, Plastics Nurse Specialist, Outpatients Burns, Plastics and Hands Service, St John's Hospital, Livingston, Scotland

INTRODUCTION

Ms. TM is a 67-year-old female who was treated as an outpatient for a pre-tibial laceration caused by a fall. She required multiple skin grafts and painkillers for persistent nerve pain. The wound, located on the lower left leg, had previously been treated with an alginate and foam dressing, with dressing changes taking place twice-weekly, lasting 10 to 15 minutes per review. However, the wound had failed to heal within the expected timeframe.

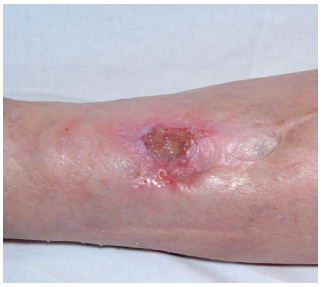


Figure 1: Baseline

At initial assessment, the wound measured 2.5cm (length) x 1.6cm (width) (Figure 1). The wound bed was moist, with a small amount of granulation tissue and adherent slough (5% epithelialising, 10% granulating and 85% slough). The surrounding skin was inflamed, dry and flaky, and the patient rated her pain at 4 out of 10 on a VAS scale. Low-to-moderate levels of serous exudate were present.

Since a stalled wound often indicates presence of infection, PROMOGRAN PRISMA Matrix was chosen to promote wound progression, with the intended outcomes of managing pain and stimulating healing. Prior to application, the wound was cleansed with water and an emollient, and a barrier cream was applied to the surrounding skin. The dressing was wet with saline and cut to size, with the clinician describing application as 'very good'. A polyurethane foam (TIELLE™ Non-Adhesive Hydropolymer Dressing with LiquaLock™ Advanced Absorption Technology) was used as a secondary dressing and the patient was advised as to how PROMOGRAN PRISMA Matrix would work.

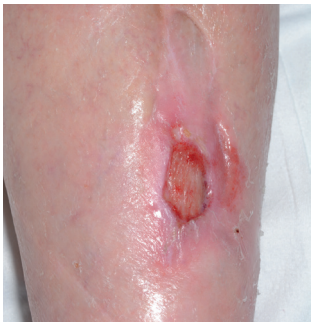


Figure 2: Review 2

Review 1: Five days later, the wound's condition had improved, with increased granulation tissue evident (epithelialising 5%; granulating 20%; sloughy 75%). The surrounding skin was dry and flaky, but no longer inflamed, and the patient's pain had reduced. Low-to-moderate serous exudate remained. The patient had followed instructions for PROMOGRAN PRISMA Matrix, which had completely biodegraded. The clinician and patient were both highly satisfied with treatment.

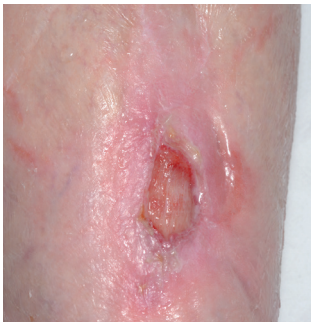


Figure 3: Review 4

The decision was made to continue using PROMOGRAN PRISMA Matrix. Before application, the wound required a small amount of debridement and barrier cream application. The dressing was wet with saline and cut to size. Ease of application was excellent and the dressing change took 10 to 15 minutes. The polyurethane foam (TIELLE™ Non-Adhesive Dressing) was continued as a secondary dressing.

Review 2 : Three days later, the matrix had completely biodegraded. The patient's pain had reduced to 2 out of 10 (VAS scale), there was less exudate present and the surrounding skin condition had improved (Figure 2). The tissue was now 5% epithelialising, 20% granulating and 75% sloughy. The wound bed was healthier, more vascular and less itchy.

The clinician and patient were both highly satisfied with treatment and PROMOGRAN PRISMA Matrix was continued due to the improvement shown. The wound was prepared with barrier cream and cleansed with water and an emollient; the dressing was cut to size and wet with saline, with application taking 10 to 15 minutes. The polyurethane foam (TIELLE Non-Adhesive Dressing) was continued as a secondary dressing.

Review 3: Further reductions in pain and exudate could be seen when the wound was reviewed on Day 12. The wound's width had reduced to 1.5cm and the wound bed was 6% epithelialising, 30% granulating and 64% sloughy. The surrounding skin was improving due to the good exudate absorption properties of the dressing.

The patient was more confident, had less pain, and both the clinician and patient were highly satisfied. The wound was cleansed with water and an emollient, and a barrier cream was applied. The dressing was prepared as before and the polyurethane foam (TIELLE Non-Adhesive Dressing) was continued as a secondary dressing.

Review 4: Three days later, there had been a further reduction in exudate and the wound appeared healthier (Figure 3). The condition of the surrounding skin was much improved and the patient rated her pain at 2 out of 10 (VAS scale).

The clinician and patient were still highly satisfied with treatment, and the patient reported being delighted that her pain had reduced and the wound had improved. PROMOGRAN PRISMA Matrix was continued, with a dressing change time of 10 to 15 minutes. The wound was cleansed and prepared as before and the polyurethane foam dressing (TIELLE Non-Adhesive Dressing) was continued, with the next dressing change planned for 4 days' time.

CONCLUSION

The patient reported that use of this dressing led to pain reduction, and the clinician reported a healthier wound bed and less excoriated surrounding skin. Although the wound had not completely healed by the end of the study, the dressing helped the wound greatly and the clinician will continue to use it.

CASE 6: ATYPICAL LEG ULCER DUE TO CRYOGLOBULINEMIA

Author: Valentina Dini, Assistant Professor, Department of Dermatology, University of Pisa, Italy

INTRODUCTION

Ms. SC is an 89-year-old female with a history of hepatitis C. She presented with a 6-month-old, atypical leg ulcer to the right lateral leg due to cryoglobulinemia, a condition where the blood contains large amounts of cryoglobulins. She had been receiving oral corticosteroids. The wound had been previously treated with a non-adherent dressing, with daily dressing changes of 5 minutes, but the ulcer had failed to heal in the expected timeframe.

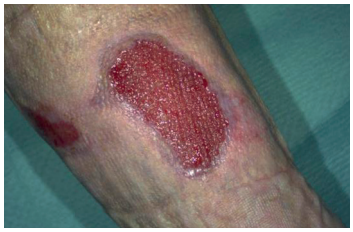


Figure 1: Baseline

At baseline, the wound comprised 100% granulation tissue and the surrounding skin was healthy, with no signs of infection (Figure 1). It measured 4.9cm (length) x 2.7cm (width). There were moderate levels of serous exudate present and the patient scored her pain at 6 out of 10 on a VAS scale.

The decision was made to use PROMOGRAN Matrix to promote healing and manage pain. The wound was cleansed with saline and the dressing was cut to size, with a non-adherent silicone (ADAPTIC TOUCH Dressing) applied as a secondary dressing.

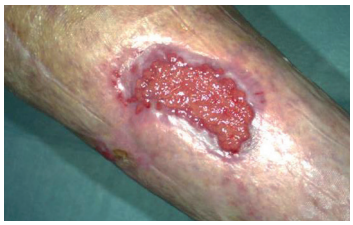


Figure 2: Review 1

Review 1: Two weeks later, the wound had reduced to 4.6cm x 0.2cm (depth) x 2.8cm, comprising 100% granulation tissue (Figure 2). The patient had followed instructions for PROMOGRAN Matrix, which had completely biodegraded. The patient's pain had reduced to 3 out of 10 on a VAS scale and exudate levels were now low.

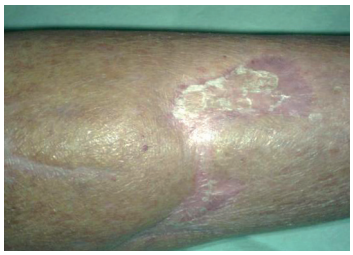


Figure 3: Final review

The clinician and patient were both highly satisfied with treatment and the decision was made to continue using PROMOGRAN Matrix. The wound was cleansed with saline, the dressing was cut to size and the non-adherent silicone (ADAPTIC TOUCH Dressing) was continued as a secondary dressing. The patient continued to receive compression therapy.

Review 2: The wound was reviewed again 5 days later. The dressing had been changed twice since the last review and the patient had followed instructions for PROMOGRAN Matrix. The patient had no pain. There was an increased amount of epithelialisation in the wound bed (40% epithelialising; 60% granulating). The surrounding skin was healthy, with low levels of serous exudate present.

The clinician and patient were highly satisfied with treatment and PROMOGRAN Matrix was continued, along with the non-adherent silicone (ADAPTIC TOUCH Dressing) as a secondary dressing. The wound was cleansed with saline and the dressing was cut to size; ease of application was described as 'excellent'. Compression therapy was continued.

Review 3: At one month, the wound had closed (Figure 3). The patient had no pain and the wound bed was 100% epithelialising, with no exudate present and no signs of infection.

CONCLUSION

The wound progressed to complete closure within one month. The clinician reported that pain, exudate and wound area reduction were all rapid. The clinician and patient were both highly satisfied with treatment.

CASE 7: IDIOPATHIC LOWER LEG ULCERATION

Author: Gustav Peters, Head of General Surgery Department,
Hospital St. Elisabeth, Damme, Germany

INTRODUCTION

Ms. EW is an 85-year-old female who was treated for idiopathic lower leg ulceration. The wound was 5 months old when treatment commenced and measured 3.5cm (length) x 0.5cm (depth) x 1.0cm (width) (Figure 1). The wound was showing signs of infection (redness and oedema). The surrounding skin was dry and flaky and there were low levels of serous exudate present. The patient measured her pain at 3 out of 10 on a VAS scale.

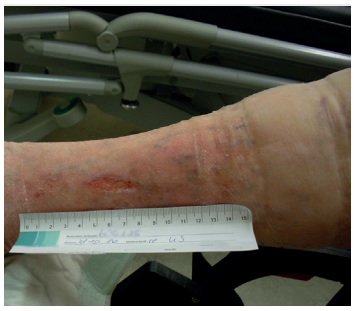


Figure 1: Baseline

The decision was made to use PROMOGRAN PRISMA Matrix due to the presenting signs of infection, with the intention of decreasing pain and encouraging the wound to complete healing. The dressing was cut to size and wet with saline to apply. A soft silicone (TIELLE Silicone Border Dressing) was chosen as a secondary dressing. The patient was advised as to the procedure for changing her dressing at home.

Review 1: After 1 week, PROMOGRAN PRISMA Matrix had completely biodegraded. The wound was no longer painful. The wound measured 3cm x 0cm x 1cm and there was new epithelialisation in the wound bed (10%, with 90% granulation). The surrounding skin remained dry and flaky, and there was still some redness, although this had decreased. Levels of serous exudate were low.

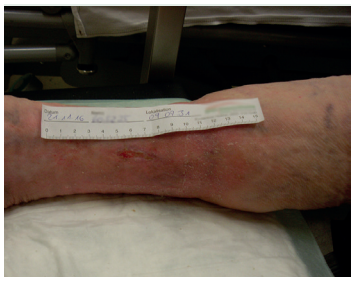


Figure 2: Review 4

The patient and clinician were both highly satisfied with PROMOGRAN PRISMA Matrix and the decision was made to continue its use. The dressing was applied as described above, with the change taking 15 minutes, and the soft silicone (TIELLE Silicone Border Dressing) was also reapplied as stated.

Review 2: One week later, after two intervening dressing changes, instructions for PROMOGRAN PRISMA Matrix had been followed and the matrix had completely biodegraded. The wound had reduced in size to 2.4cm x 0cm x 1cm. Composition of the wound bed remained the same and only a small amount of redness and oedema remained. There were low levels of serous exudate present and the patient had no pain.

Again, the patient and clinician were both highly satisfied with PROMOGRAN PRISMA Matrix, with the patient citing improvement to her quality of life. The dressing was reapplied as described above, with the change taking 10 minutes, while the soft silicone (TIELLE Silicone Border Dressing) was also reapplied as before.

Review 3: After another 7 days and two intermediate dressing changes, the wound was reviewed for a third time. The wound now measured 2.2cm x 0cm x 0.9cm. The wound bed condition was described as 'very good', comprising 40% epithelial tissue and 60% granulation, with a small amount of redness but no oedema present. The surrounding skin was healthy and the patient had no pain. Serous exudate levels were low.

The patient and clinician were both highly satisfied with the PROMOGRAN PRISMA Matrix and the decision was made to continue its use due to wound improvement. The dressing was reapplied as described, with the soft silicone (TIELLE Silicone Border Dressing) also reapplied.

Review 4: The fourth review took place another week later, after two intervening dressing changes. The patient had continued to follow instructions for the PROMOGRAN PRISMA Matrix, which had completely biodegraded. There had been a substantial reduction in the wound's length and width, which now measured 1.5cm x 0cm x 0.3cm (Figure 2).

The wound bed now comprised 60% epithelialising tissue with 40% granulation. The dressing was dry when removed as exudate levels were very low and the patient had no pain. The surrounding skin was healthy. The clinician and patient were both satisfied with treatment and the decision was made to continue using the PROMOGRAN PRISMA Matrix in the same manner, since the wound had improved considerably.

CONCLUSION

By the end of the study, the wound had almost completely healed. The patient was very satisfied. The clinician stated that the PROMOGRAN PRISMA Matrix was a positive option for future wound treatment.

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