

**STUDY TYPE:** MULTICENTER, RANDOMIZED, CONTROLLED PROSPECTIVE OPEN-LABEL COMPARATIVE STUDY (LEVEL II)

## The Healing Properties of PROMOGRAN™ Matrix Wound Dressing in Venous Leg Ulcers

Vin F, Teot L, Meaume S. J Wound Care 2002;11(9):335-341.

### STUDY PURPOSE

The purpose of this study was to compare the healing properties of collagen/oxidized regenerated cellulose dressings (C/ORC, **PROMOGRAN™** Matrix Wound Dressing, Systagenix Wound Management, Limited, an Acelity Company, Gargrave, UK), non-adherent dressing (ADAPTIC™ Non-Adhering Dressing, Systagenix Wound Management, Limited, an Acelity Company, Gargrave, UK), gauze dressings, and compression therapy (BIFLEX® 16+ Compression Band, Thuasne, France) with a non-adherent dressing (ADAPTIC™ Dressing) with gauze and compression therapy (BIFLEX® 16+ Compression Band) in the treatment of chronic venous leg ulcers.

### METHODS

#### • Patient population

- Patients with venous leg ulcers present for  $\geq 30$  days, free of infection, confirmed venous etiology, and an ankle brachial pressure index of  $\geq 0.8$  were included.
- Wound size was required to be between 2 and 10cm.
- If the patient had multiple wounds, the largest ulcer  $\geq 3$ cm away from any other ulcers was the trial ulcer.
- Patients were randomized into the treatment group with C/ORC dressing (n=37) or the control group with non-adherent dressing plus gauze and a short-stress compression (n=36).

#### • Treatment

- The wounds were cleaned with warm sterile saline and the surrounding tissues dried prior to dressing application.
- The C/ORC dressing was cut to fit the wound followed by application of the non-adherent dressing, gauze, and compression bandages.
- The control group wounds received a non-adherent dressing followed by gauze and compression bandages.
- Dressing changes occurred at least twice a week or more, depending on wound conditions.
- Wound tracings and color photographs were taken after each dressing removal and sent to two blinded investigators for evaluation.
- Wound healing and patient reported pain during dressing removal were assessed at each dressing change.

#### • Follow-up

- Patients were followed for a maximum of 12 weeks.

## RESULTS

- Twenty-nine patients completed the 12 week follow-up visits (26 patients were evaluated at 12 weeks; 3 were evaluated at 11 weeks).
- Significantly more patients in the non-adherent dressing group switched to another dressing than the C/ORC dressing group (22.2% versus 5.4%,  $p=0.035$ ).
- Of the 26 patients that were evaluated at 12 weeks, similar number of wounds healed between the two groups (control group,  $n=11$ ; C/ORC group,  $n=15$ ;  $p=0.373$ ).
- Wound surface area decreased significantly more in patients treated with C/ORC dressings (control group:  $36.5 \pm 11.4\%$ ; C/ORC group:  $54.4 \pm 10.9\%$ ;  $p<0.001$ ).
- No severe local adverse events were reported in either group; however, poor dressing tolerability was noted as the reason to switch to another dressing in 5 control patients and 3 C/ORC patients.

## DISCUSSION

- C/ORC dressings trended toward faster healing rates and better clinical outcomes than the non-adherent control dressing.
- C/ORC dressings promoted a significant reduction in wound surface area compared to the non-adherent control dressing.
- The authors acknowledge the potential for bias due to the open-label nature of the study. However, the authors tried to circumvent this bias by having blinded evaluators assess the wound tracings and photographic data for wound healing assessment.

## CONCLUSION

The authors conclude that the data indicates better healing rates in patients with venous leg ulcers who received C/ORC dressings compared to patients who received the non-adherent control dressings; however, further studies are needed.