Chronic Venous Ulcer

Type of Wound	Chronic venous ulcer*
Etiology	Venous insufficiency with 5-year open wound on the medial and lateral side of the lower left leg
Patient	51-year-old male

Decision Tree

1 . Wound clean? No

2 . High risk for general anesthesia? No

3 . Wound bed well vascularized? No

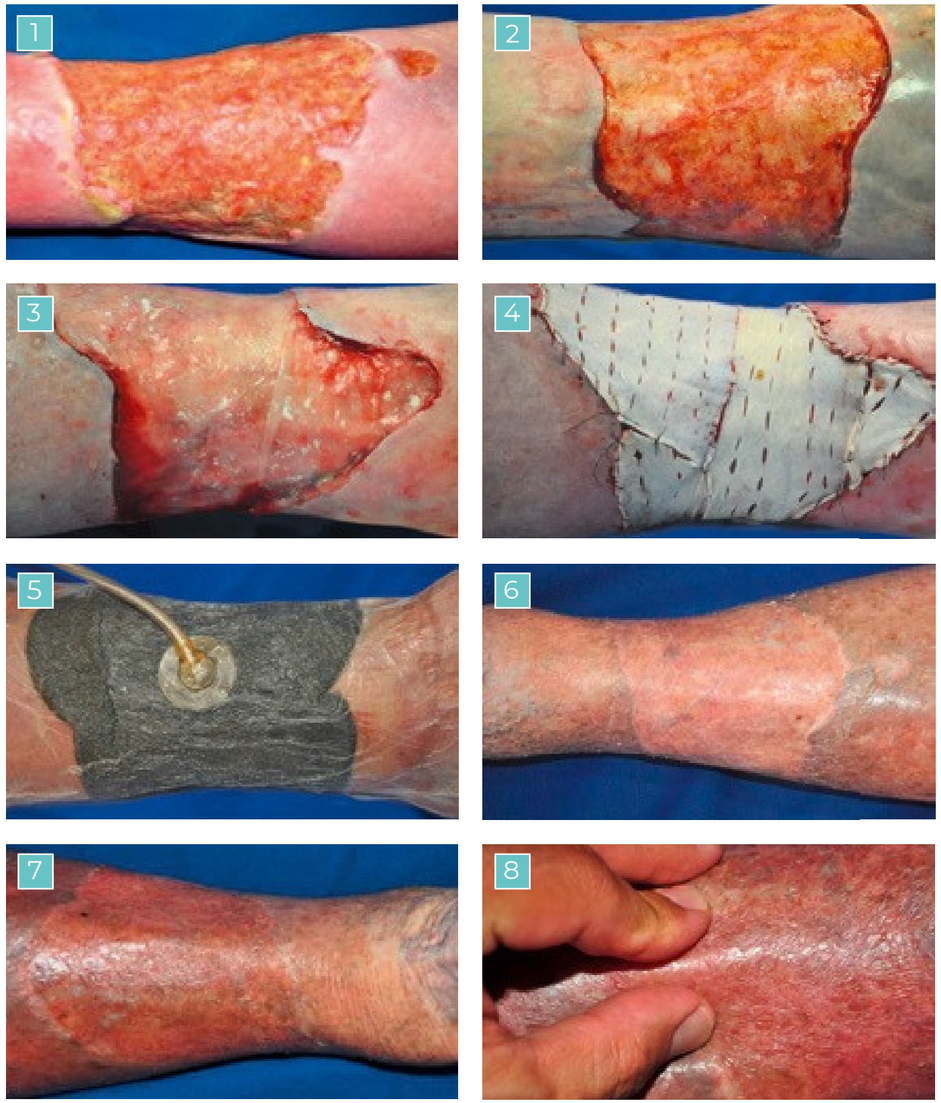
4 . Cavity deeper than 5 mm? No

5 . Large area of exposed bones / tendons? No

On first examination the wound bed appeared fibrinous and was covered with a yellowish layer, but there were no signs of necrotic tissue (Fig. 1). The wound bed was treated with non-adherent gauze for 6 months prior to surgery. Antibiotics were administered and the wound was cleansed once with chlorhexidine.

During the surgery the wound bed was properly debrided (Fig. 2) prior to dry application of 1 mm MatriDerm®. The matrix was rehydrated inside the wound bed (Fig. 3). MatriDerm® was covered with a 0.010 inch, unmeshed, fenestrated split-thickness skin graft (STSG) (Fig. 4). MatriDerm® and the STSG were fixated with 6 layers of fatty gauze and V.A.C. therapy with the GranuFoam dressing was applied for 5 days (100 mmHg, continuous negative pressure) (Fig. 5). At 14 days p.o. the take rate of the STSG was 95% and at 1 month the skin graft was completely integrated with full and stable wound closure, and the patient was able to wear compression socks for his venous insufficiency.

3 .5 years follow-up showed very stable wound closure with good aesthetic outcome. The wound edges are leveled with the surrounding healthy tissue (Fig. 6) and the patient has full functional results with extension and flexion of his leg (Fig. 7). Excellent wound elasticity and pliability was achieved (Fig. 8).



* Courtesy of F . Tostes, MD, Rio Grande do Sul, Brazil
V.A.C. therapy and GranuFoam by Kinetic Concept, Inc (KCI)