

Case study:

Application of the Solventum™ V.A.C.® Peel and Place Dressing to an Evacuated Lower Extremity Hematoma

Dot M. Weir, RN, CWON, CWS

Saratoga Hospital Center for Wound Healing and Hyperbaric Medicine, Saratoga Springs, New York

Patient & diagnosis

An 82-year-old male presented with a hematoma to his left lateral lower extremity (**Figure 1**). The patient had a prior medical history of type 2 diabetes mellitus, gout, hypertension, hyperlipidemia and mild dementia.

Procedure

The initial wound dimensions were 3.8 cm x 4.9 cm x 0.3 cm with 0.9 cm undermining from 9 to 3 o'clock. The wound had moderate sanguineous exudate. The patient's residual hematoma was evacuated and debrided via ultrasound. The wound had moderate sanguineous exudate. The wound was managed using gelling fiber and bordered silicone foam dressing for three days.

Initial application of Solventum™ V.A.C.®

Peel and Place Dressing

Three days post-initial presentation, the wound exhibited red, granular tissue and measured 3.5 cm x 4.6 cm x 0.3 cm with 0.7 cm undermining from 10 to 2 o'clock (**Figure 2A**). Wound exudate was moderate but was now serosanguineous.

A decision was made to initiate Solventum™ V.A.C.® Therapy with the V.A.C.® Peel and Place Dressing for wound management. This integrated negative pressure wound therapy (NPWT) dressing and drape has a perforated, non-adherent layer designed to help mitigate the incidence of tissue ingrowth and allows for an extended wear time up to seven days. V.A.C.® Peel and Place Dressing was selected for ease of use and reduced time and frequency for dressing changes. Prior to the initial placement of V.A.C.® Peel and Place Dressing (**Figure 2B**), the wound was soaked using hypochlorous acid solution and cleansed mechanically with gauze. No debridement was performed.

A large-size V.A.C.® Peel and Place Dressing was placed over the wound and periwound area. The Solventum™ SensaT.R.A.C.™ Pad was placed so that the tubing was superior to the foot and would extend up the left leg. Solventum™ ActiV.A.C.™ Therapy Unit was initiated at -125 mmHg of subatmospheric pressure. Total application time of the V.A.C.® Peel and Place Dressing was less than two minutes.

Treatment

On Day 10 after the initial presentation, the patient returned to the clinic. Wound size reduction was noted (3.5 cm x 4.3 cm x 0.1 cm), and the undermining was resolved (**Figure 3**). A medium-size V.A.C.® Peel and Place Dressing was applied.

On Day 14, periwound skin was noted to be moist (**Figure 4A**), erythema was observed around the edge of the drape and tissue deformation was noted underneath the location of the SensaT.R.A.C.™ Pad (**Figure 4B**). To address these issues, a large-size V.A.C.® Peel and Place Dressing was reapplied to allow the SensaT.R.A.C.™ Pad to be placed below the wound (**Figure 4C**).



Figure 1A. Wound at presentation. Evacuated hematoma resultant of an avulsion injury on the lateral left leg.



Figure 1B. Residual hematoma was debrided via ultrasound and wound initially managed using gelling fiber and foam dressing.



Figure 2A. Wound three days after presentation.



Figure 2B. Placement of V.A.C.® Peel and Place Dressing.



Figure 3. Wound at Day 10.



Figure 4A. Wound at Day 14. Periwound skin appeared moist.



Figure 4B. Erythema and irritation along the outline of the dressing and drape interface.



Figure 4C. Large-size V.A.C.® Peel and Place Dressing oriented to offset the SensaT.R.A.C.™ Pad, which was placed inferior to the wound.

Application of the Solventum™ V.A.C.® Peel and Place Dressing to an Evacuated Lower Extremity Hematoma

Treatment (cont'd)

On Day 21, the wound measured 3.8 cm x 3.0 cm x 0.1 cm (**Figure 5**), and wound edges were attached. Periwound skin was noted to be moist but not macerated. On Day 28, the patient returned to the clinic. The wound was characterized by red, healthy granulation tissue and measured 4.0 cm x 2.5 cm x 0.1 cm (**Figure 6**). V.A.C.® Therapy was reapplied with V.A.C.® Peel and Place Dressing.

Seven days later (Day 35), the wound was epithelializing, and the clinician elected to discontinue V.A.C.® Therapy with V.A.C.® Peel and Place Dressing and switch to 3M™ Promogran Prisma™ Matrix dressings with compression.

Follow-up

On Day 48, the wound margins had contracted further, and the wound bed displayed healthy tissue granulation and appreciable re-epithelialization (**Figure 7**). By Day 63, the wound had fully epithelialized (**Figure 8**).



Figure 5. Wound at Day 21 and prior to one-week suspension of V.A.C.® Therapy.



Figure 6. Wound at Day 28 before the reinitiation of V.A.C.® Therapy with V.A.C.® Peel and Place Dressing.



Figure 7. Wound on Day 48.



Figure 8. Epithelialized wound on Day 63.

Clinician experience

The patient reported that he experienced no pain or discomfort with V.A.C.® Peel and Place Dressing changes. For this patient, V.A.C.® Therapy with V.A.C.® Peel and Place Dressing was a well-tolerated intervention for wound management and through its creation of an environment that promotes wound healing, contributed to a positive healing outcome as evidenced by granulation tissue development, wound contraction and epithelialization.

Compared to traditional reticulated open cell foam dressings, use of the V.A.C.® Peel and Place Dressing saved time and cost in terms of reduced application time and fewer outpatient and/or home care visits. The ease of dressing application and reduced pain during dressing changes improved the NPWT experience for the patient, his family and clinicians involved in his care. The seven-day extended wear and easier dressing application also addressed other challenges in using NPWT, including patient transportation issues and clinic scheduling.

V.A.C.® Peel and Place Dressing is indicated for closure of wounds via secondary intention, which includes epithelialization during the proliferation stage of healing. Use of the product as a primary epithelialization dressing is not indicated.

As with any case study, the results and outcomes should not be interpreted as a guarantee for warranty of similar results. Individual results may vary depending on the patient's circumstances and condition.

NOTE: Specific indications, limitations, contraindications, warnings, precautions and safety information exist for these products and therapies. Please consult a clinician and product instructions for use prior to application. Rx only.

Photos courtesy of Dot M. Weir, RN, CWON, CWS; Saratoga Hospital Center for Wound Healing and Hyperbaric Medicine, Saratoga Springs, New York. Dot Weir, RN, CWON, CWS is a paid consultant of Solventum.