Season’s Greetings from KCI Medical India Pvt. Ltd.,
Wishing you, your family and friends a happy, prosperous and exciting 2013.

Our journey in India has been truly exceptional and fulfilling, wherein over 9000 wounds have been treated with V.A.C.® Therapy from inception in 2010 October, thereby saving many limbs and lives.

In 2012, KCI Medical moved from a Distributor-driven business model to direct model, where sales and clinical would be working under KCI India, to provide better customer service. Customer service through unmatched clinical support has been the backbone of our success. Excellence in customer service will continue to be our top priority, and I assure you the KCI Staff and our partners will strive to deliver the best possible support and services.

While we have scores of success stories with V.A.C.® Therapy in various applications like Diabetic Foot Ulcer, Pressure Ulcer, Trauma Cases etc., in this newsletter we would like to share with you the following cases studies by prominent and well known surgeons in their respective field.

1. Case Study: V.A.C.® Therapy for Grade IV Sacral Pressure Ulcer - An Alternative to Flap Reconstruction
   Dr. R. K. Batra
   Consultant General & Laparoscopic Surgeon,
   Alchemist Hospital

2. Case Study: Avulsion Injury of the Scalp
   Dr. Vijay Tambwekar
   Consultant Plastic & Cosmetic Surgeon,
   Bombay Hospital - HN Hospital - Seven Hills Hospital

3. Case Study: The Use of Negative Pressure Therapy (NPWT) for the treatment of Lowering Extremity Wounds with Exposed Bone
   Dr. Hardeep Singh
   Department of Plastic Surgery,
   Victoria Hospital, BMC and RI

I am sure you will enjoy reading this edition of the newsletter and the case studies. We would continue bringing to you unique case studies of positive outcomes with V.A.C.® Therapy in India.

Thanking you all once again for all the support and wishing you a very happy and fulfilling 2013.

Sajiv S
General Manager

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New products* to be launched in 2013

Prevena™ Incision Management System

The first powered negative pressure product designed specifically for management of closed surgical incisions that continue to drain following sutured or stapled closure. The Prevena™ Incision Management System is an integrated one-piece dressing designed for use over the surgical incision and surrounding intact skin. It is specially designed to conform to patient contours.

ActiV.A.C.® Therapy Unit
Easier Negative Pressure Wound Therapy by Design

The V.A.C.® Therapy System for ambulatory patients, designed to simplify patient compliance and mobility. The ActiV.A.C.® Therapy System has been designed to help patients resume their activities of daily living while still receiving the proven wound healing benefits of V.A.C.® Therapy. This includes many new enhancements that make using V.A.C.® Therapy easier for both patients and healthcare professionals.

* These products are under CDSCO registration

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V.A.C.® Therapy Quick Facts*

- 930 V.A.C.® Therapy Articles
- 768 Peer-Reviewed V.A.C.® Therapy Articles
- 180 V.A.C.® Therapy Articles-Not English
- 58 Peer-Reviewed V.A.C.® Therapy Articles-Not English
- 886 V.A.C.® Therapy Abstracts
- 592 V.A.C.® Therapy Related Articles
- 70 V.A.C.® Therapy Book References

*As of 12th November, 2012
was positioned in the depth of the wound, over which loose sutures were placed to approximate the wound edges (Figure 1B). Ostomy paste (Adapt Paste, Hollister Inc, Libertyville, IL) was used to fill the cleavage, and then the transparent, adhesive drape was applied securely over the wound to prevent air and fluid leak from natal cleft (Figures 1C-E). The patient experienced significant improvement in quality of life on Day 2 of V.A.C.® Therapy, when the odor and exudate leakage were no longer present. The foam dressing was changed and reapplied every fifth day for six cycles per physician order (approximately 1 month) until nearly complete healing was achieved (Figure 1F). V.A.C.® Therapy was discontinued, and conventional gauze dressing changes were performed for the next 2 weeks. Complete closure was achieved in approximately 2 months (Figure 1G).

Development of Grade IV Ischemic Sacral Pressure Ulcer

A 32-year-old male presented with acute febrile illness and septic shock to an emergency unit. Patient was placed on a ventilator and received high doses of inotropic for approximately 7 days. Despite placement on a pressure relief mattress, regular re-positioning and appropriate care, the patient developed a large stage IV ischemic sacral pressure ulcer (Figure 1A). He was then referred to the surgical department for pressure ulcer management.

The wound was debrided and daily gauze/antiseptic dressings were applied. However, frequent changes of dressings were required due to leakage of foul smelling exudate. The decision was made to initiate V.A.C.® Therapy, despite close proximity of the wound to the anus (extending up to 2 cm from anal verge).

A. Holding sutures to keep retraction in check as well as to facilitate V.A.C.® Therapy application
B. Wound on Day 10 at second V.A.C.® Therapy dressing change
C. Application of ostomy paste to prevent air and fluid leak from natal cleft
D. V.A.C.® Therapy initiated at -125 (mmHg)
E. Wound after 6 weeks of V.A.C.® Therapy. Therapy discontinued, followed by moist wound gauze for 2 weeks
F. Wound completely healed at 2 months

A possible approach to the management of this case is to use V.A.C.® Therapy. The following case study demonstrates successful use of V.A.C.® Therapy to treat a complex, difficult-to-dress sacral pressure ulcer.

Case Study

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A possible approach to the management of this case is to use V.A.C.® Therapy.
Case Study: Avulsion Injury of the Scalp

Author:
Dr. Viraj Tambwekar  
MS. DNB (Plastic Surgery)

Consultant Plastic &  
Cosmetic Surgeon  
Bombay Hospital – HN Hospital - Seven Hills Hospital

Patient:
A 43-year-old male was admitted to the hospital after a motor vehicle accident involving his scooter (Figure 1). The patient was unconsciousness for a week and, after regaining consciousness, was then transferred to a different hospital where the following treatment occurred.

Diagnosis:
On presentation, the patient was diagnosed with a subdural hematoma, which was resolving. The patient had severe avulsion of the scalp in 4 flaps that were poorly sewn together. The right temporo-parietal flap was escharified over the vertex, and there was skin loss and bone exposure in the left frontal area (Figure 1).

Wound Progress:
The wounds, including the flaps, were debrided under general anesthesia, which resulted in a large amount of exposed bone without periosteum. Holes were drilled in the outer table of the skull (Figure 2), and V.A.C.® Therapy was initiated.

V.A.C.® Therapy System Initiation:
V.A.C.® Therapy was applied for 16 days with dressing changes occurring every 4 days on an out-patient basis. At each dressing change, there was an increased amount of quality granulation tissue covering the exposed bone (Figure 3). Additionally, there was no evidence of osteomyelitis or drying of bone.

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

NOTE: Specific indications, contraindications, warnings, precautions and safety information exist for KCI products and therapies. Please consult a physician and product instructions for use prior to application.

Dressing change protocol / recommended schedule of 3 days were not adhered to due to patients financial constraints.

Post-V.A.C.® Therapy Follow-up:
After 16 days of V.A.C.® Therapy, there was sufficient coverage and subsequently the patient was discharged after debridement and was readmitted for grafting when the first dressing was changed.

Discussion:
Due to multiple flaps and avulsion, a resurfacing of the skull with a free flap was ruled out. Therefore, V.A.C.® Therapy was used to prepare the wound bed for grafting (Figure 5). This allowed for a reduction in the patient’s hospitalization, antibiotics and other medical costs. Also, a rotation scalp flap may be performed at a later date (Figure 5).

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

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Case Study: The Use of Negative Pressure Therapy (NPWT) for the Treatment of Lower Extremity Wounds with Exposed Bone

Author:
Dr. Hardeep Singh, MD
Department of Plastic Surgery
Victoria Hospital, BMC and RI
Bangalore, India

Patient:
A 22-year-old male presented with a transmetatarsal amputation with some necrotic tissue and exposed bone. Four days prior, a heavy stone had fallen on his right foot. Treatment at a prior hospital included debridement and amputation of the forefoot.

Diagnosis:
Upon examination, the initial plan of treatment was to perform a free flap. However, after discussion among colleagues, the wound was surgically debrided of all necrotic tissue (Figure 1A) and V.A.C.® Therapy was initiated.

V.A.C.® Therapy System Initiation:
V.A.C.® Therapy was applied to the wound and initially set at -125 mmHg in continuous mode. Dressing changes were performed every 3 to 4 days for a total of 2 changes. After the first dressing change, the mode was changed to intermittent (5 minutes on and 2 minutes off). After 1 week, V.A.C.® Therapy was discontinued due to sufficient formation of granulation tissue over the exposed bone.

Post-V.A.C.® Therapy Follow-up:
One week after V.A.C.® Therapy, a split-thickness skin graft (STSG) was applied. At 2 months post-STSG (Figure 1B), there was a small area (1 cm) that showed granulation tissue formation, which eventually resolved on its own with conservative management. The wound was stable at 6-9 months (Figure 1C) post follow-up. No major complications occurred that were directly attributed to the treatment.

Discussion:
V.A.C.® Therapy is a useful adjunctive treatment for open wounds of lower limbs. This therapy helped facilitate the rapid formation of granulation tissue, shortened healing time, and remarkably reduced the need for additional soft tissue reconstructive surgery. It can also be used as an alternative to other reconstructive procedures in specific conditions.

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V.A.C.® WhiteFoam Dressing

V.A.C.® WhiteFoam Dressings are an essential component of effective NPWT-based wound healing.

The V.A.C.® WhiteFoam Dressing is an open-cell, polyvinyl alcohol foam pre-moistened with sterile water. It has higher tensile strength and is less adherent than V.A.C.® GranuFoam™ Dressings.

V.A.C.® WhiteFoam Dressing – White

- Hydrophilic: pre-moistened with sterile water
- Dense foam with greater pore size distribution than GranuFoam™ Dressings
- The higher density of V.A.C.® White Foam requires a minimum pressure setting of -125 mmHg

V.A.C.® WhiteFoam Dressing Applications

- Superficial wounds with a low volume of exudate
- Painful wounds
- Grafted wounds to assist in success of the graft take
- Tunneling wounds or small-volume wounds due to its high tensile strength

V.A.C.® White Foam is selected for specific wound types and goals of therapy

- Its characteristics help to reduce the likelihood of adherence to the wound base

V.A.C.® WhiteFoam Dressings may be used to assist in minimizing discomfort in situations where hypergranulation responses are likely

V.A.C.® WhiteFoam Dressings are ideal for Split Thickness Skin Grafts

- V.A.C.® WhiteFoam Dressings can be placed directly over the new graft (refer to the V.A.C.® Therapy Clinical Guidelines)
- The rationale is to help:
  a. bolster the graft to assist flap/grant take
  b. protect the graft to minimize shear forces, and c. remove any seroma under the graft that may compromise the take of the new skin by the action of NPWT

V.A.C.® WhiteFoam Dressings are suitable for wounds with tunnels and undermining

- The foam can be cut and beveled to shape
- Do not place foam into blind or unexplored tunnels
- The ongoing management of these areas requires shortening of the foam at each subsequent dressing change (refer the V.A.C.® Therapy Clinical Guidelines)
- V.A.C.® WhiteFoam requires a minimum negative pressure of -125 mmHg given its dense structure

V.A.C.® WhiteFoam can be used with V.A.C.® GranuFoam™ if the wound is large, but the GranuFoam™ does not influence the response of the V.A.C.® WhiteFoam at the wound interface
KCI understands that patients and family members might want to know about our therapies, products and services.

The booklet on Diabetic foot ulcers answers some questions that patients and family members may have.