

LETTER**The VAC-Basket for Easy Fixation of Scrotal Skin Grafts**

Philipp Huettinger, Karin M. Dunst-Huemer, Georg M. Huemer
Section of Plastic and Reconstructive Surgery, General Hospital Linz, Linz, Austria

Correspondence: Georg M. Huemer
 Section of Plastic and Reconstructive Surgery, General Hospital Linz, Krankenhausstrasse 9,
 4020 Linz, Austria
 Tel: +43-732-7806-73819, Fax: +43-732-7806-3170, E-mail: ghuemer@drhuemer.com

No potential conflict of interest relevant to this article was reported.

Received: 5 Sep 2012 • Revised: 11 Oct 2012 • Accepted: 24 Oct 2012
 pISSN: 2234-6163 • eISSN: 2234-6171
<http://dx.doi.org/10.5999/aps.2012.39.6.667> • Arch Plast Surg 2012;39:667-668

Copyright © 2012 The Korean Society of Plastic and Reconstructive Surgeons
 This is an Open Access article distributed under the terms of the Creative Commons Attribution
 Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits
 unrestricted non-commercial use, distribution, and reproduction in any medium, provided the
 original work is properly cited.

The vacuum assisted closure (VAC, Kinetic Concepts, Inc., San Antonio, TX, USA) device has revolutionized wound management in recent years due to its ability of exudate clearance, tissue granulation induction and edema reduction [1]. It also has been shown very beneficial in aiding skin graft take in difficult anatomical regions [2].

Fournier's gangrene is characterized by perineal tissue necrosis caused by bacterial infection. Therapy usually consists of wide debridement together with appropriate antibiotic drug administration to reduce bacterial burden and control infection. After the initial debridement, the reconstructive surgeon faces large raw surface areas in the perineogenital region that have to be covered. This typically can be achieved by skin grafts or local flaps. Due to the three-dimensional character of this region, fixation of the skin graft may be difficult



Fig. 1. Creation of the "VAC-basket" out of a regular VAC GranuFoam dressing. The Foam is first cut in the upper third in a horizontal plane and the lower two-thirds are brought together in the median just as small "flaps" and secured with simple skin staples.

and hinders therefore optimal graft take. In such difficult cases, the VAC device has been utilized as the optimal initial wound dressing [3,4]. Here we want to present our modification for easy fixation and application of a skin graft in scrotal reconstruction after Fournier's gangrene.

A 54-year-old patient was admitted to our Urology department for treatment of a massive soft tissue infection in the perineogenital region. After initial debridement and antibiotic therapy, the patient presented to our department with a global skin defect over the scrotum that was well granulated. The decision was made in favor of skin graft reconstruction. To enhance graft fixation, we constructed our "VAC-basket" out of a regular commercially available VAC-Granu Foam medium dressing kit (Figs. 1, 2). The unmeshed skin graft was harvested from the right lateral thigh region and was initially fixed with multiple interrupted 4-0 Polysorb (Covidien, Mansfield, MA, USA) sutures. Then, the wound edges were secured with double-sided adhesive hydrogel strips (VAC gel). Now, the "VAC-basket"



Fig. 2. The next step involves trimming of the upper "flaps" so that a triangular flap remains which allows for closure of the basket and forms the bottom of the "VAC-basket".



Fig. 3. The patient presented with a global skin defect over the scrotum after debridement from Fournier's gangrene. Defect coverage was achieved with an unmeshed split-thickness skin graft.



Fig. 4. After creation, the "VAC-basket" was fixed with drapes in the usual manner.

was snugly fit over the skin-grafted scrotum und fixed with some skin staples. Finally, the dressing was completed with drapes and the SensaTRAC-pad. The dressing was left in place for 5 days and then completely removed. Skin graft take was excellent (Figs. 3-5). We were able to discharge the patient, who was instructed in further local wound care, after another 3 days from our unit.

We here describe a useful application and modification of the VAC-system for easy fixation of skin grafts in the scrotal region. The usefulness of the VAC system in the perineogenital region has been described in the past [3,4]. However, applying the VAC sponge to this often-difficult area is tedious. Our modification is novel in so far, that a basket is created out of a regular VAC sponge in order to hold the scrotum and its attached skin graft. The "VAC-basket" further expands the clinical utilization of the very useful VAC-therapy.



Fig. 5. At two-weeks follow-up there was excellent graft take.

References

1. Argenta LC, Morykwas MJ. Vacuum-assisted closure: a new method for wound control and treatment: clinical experience. *Ann Plast Surg* 1997;38:563-76.
2. Schneider AM, Morykwas MJ, Argenta LC. A new and reliable method of securing skin grafts to the difficult recipient bed. *Plast Reconstr Surg* 1998;102:1195-8.
3. Senchenkov A, Knoetgen J, Chrouser KL, et al. Application of vacuum-assisted closure dressing in penile skin graft reconstruction. *Urology* 2006;67:416-9.
4. Weinfeld AB, Kelley P, Yuksel E, et al. Circumferential negative-pressure dressing (VAC) to bolster skin grafts in the reconstruction of the penile shaft and scrotum. *Ann Plast Surg* 2005;54:178-83.