THE USE OF THE USE OF NEGATIVE PRESSURE WOUND THERAPY IN VULVAR WOUNDS

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BACKGROUND

- Hidradenitis Suppurativa (HS) is a chronic inflammation of the apocrine sweat glands that typically affects the intertriginal areas.
- Blockage of follicular opening leads to infection. In many patients extensive surgical debridement is the only option.
- Necrotizing Fasciitis is an infection of the deep fascia with secondary necrosis of subcutaneous tissue. The only treatment is surgical debridement.
- Closure of vulvar wounds resulting from the above conditions have traditionally been achieved using split-thickness skin grafts. This method, however, requires additional OR time, a potential for increased in blood loss, infection, and graft rejection.
- Negative pressure wound therapy devices have most commonly been used as an adjunct to traditional closure. At Thomas Jefferson University Hospital negative pressure wound therapy was achieved using the Vacuum Assisted Closure Device (VAC). Very few case reports have used the VAC device alone to achieve complete closure of vulvar wounds.
- The VAC device allows the application of sub-atmospheric pressure to the site of a wound. This promotes accelerated wound healing and tissue granulation by increasing blood flow, decreasing bacterial counts, increasing granulation formation via VEGF activation, preventing fluid accumulation and preventing wound desiccation.
  - **Objective: To evaluate whether extensive vulvar wounds resulting from surgical management of HS and Necrotizing Fasciitis are able to achieve complete closure with the VAC device alone.**

MATERIALS & METHODS

➢Four patients treated at Thomas Jefferson University Hospital from 2005-2008 with extensive vulvar wounds resulting from surgical debridement from either HS or necrotizing fasciitis were identified.

➢All patients had VAC application at or soon after the initial surgery.

➢VAC changes were conducted three times a week for a variable amount of time. Degree of granulation and details of wound healing were documented in patient charts and all patients were treated and evaluated by a specialized wound care nurse.

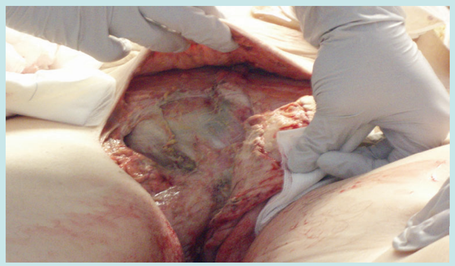
➢Retrospective chart reviews were conducted and data collected regarding their postoperative course and wound healing.

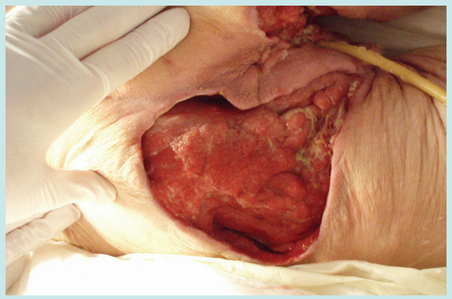
RESULTS

- **Three of the four patients were able to achieve complete closure of their vulvar wounds with the VAC device alone within three months of VAC placement.**
- **One patient required complete closure with a split-thickness skin graft secondary to intolerance of bedside VAC changes.**

Figure 1: 42 year old patient with a ten year history of gluteal and pubic HS. VAC placed on postoperative day three.

Figure 2: Patient achieved complete closure of vulvar wound in three months.





Figures 3-5: 58 year old who underwent surgical debridement for necrotizing fasciitis. VAC placed on postoperative day five. Patient achieved complete closure within two months

CONCLUSIONS

- **Patients with severe HS or Necrotizing Fasciitis often require extensive surgical debridement.**
- **Traditionally, these wounds have been closed using split-thickness skin grafts with or without the use of the VAC device.**
- **Our case study demonstrates good outcomes using the VAC device alone to achieve complete closure when applied immediately following debridement with frequent VAC changes.**