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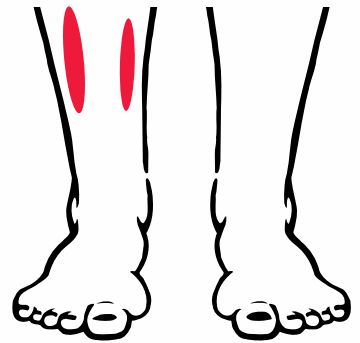
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# CLINICAL CASE STUDY DEMONSTRATING USE OF GLYCERINE HYDROGEL SHEET ON DENUDED PERI WOUND SKIN TO CREATE AN EFFECTIVE NEGATIVE PRESSURE THERAPY SEAL

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## Objective:

1. After viewing this poster presentation, the participant will be able to formulate an effective treatment plan utilizing glycerine hydrogel sheet\* to create a seal with negative pressure therapy for wounds with surrounding denuded peri wound skin.
2. The participant will describe the benefits of the glycerine hydrogel\* for it's absorptive and bacteriostatic properties.



## Problem:

A frail 83 year old insulin dependent diabetic presented for admission with a L 20.2cm x W 27.5cm traumatic injury of lower anterior leg. Surgical consult revealed hematoma with compartment syndrome. Incision and drainage of a large seroma with debridement of necrotic tissue was accomplished in the operating room. The seroma was overlying two large hematomas that were opened and drained. When assessed by the wound care specialist, two full thickness wounds #1: L 11.1cm x W 1.9cm x D 2.4cm with extensive undermining and #2: L 4.8cm x W 1.8cm x D 1.8cm with no undermining were revealed. The peri wound skin was extremely denuded virtually encircling the entire leg. Extensive edema with copious drainage prevented effective application and creation of a seal of the ordered negative pressure therapy.

## Rational:

The glycerine hydrogel sheet\* was selected in conjunction with negative pressure therapy for it's ability to create a seal while absorbing excess fluid, enhancing granulation and creating a bacteriostatic environment.

## Methodology:

With each treatment the wound was cleansed and glycerine hydrogel sheet\* was cut to cover denuded peri wound skin. Negative pressure therapy applied. Treatment plan continued until healing of the denuded area successfully occurred in twenty-two(22) days.

## Results:

Comfortable rapid healing of denuded tissue, absorption of fluid, infection-free wound with effective application of negative pressure therapy creating a secure seal.

## Conclusion:

The glycerine hydrogel sheet\* provided ease of application and was effective in securing a seal with no leakage of negative pressure therapy of a massive traumatic wound. The hydrogel sheet\* provided comfortable healing and absorption of copious fluid from the denuded area while providing a bacteriostatic environment.

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## Case Study

### Problem:

Excessive weeping and denuded skin surrounding two large full thickness wounds with an order for negative pressure therapy.

### Initial Visit

#### Photo #1:

Patient presented to the hospital (5/22/08) with a traumatic injury measuring L 20.2cm x W 27.5cm of the lower leg.



Photo 1

#### Photo #2:

(5/25/08) Surgery ensued resulting in two open wounds. Peri wound tissue was extremely denuded and weeping. Dr. ordered negative pressure therapy. The plan was to cleanse the denuded tissue and apply glycerine hydrogel sheet\* to create a seal with transparent dressings for



Photo 2



Photo 3

negative pressure therapy.

#### Photos #3 & #4:

(5/28/08) Three days after application of glycerine hydrogel sheet\*, the denuded tissue presents with evidence of early granulating tissue. When the glycerine hydrogel sheet\* was removed it was completely saturated with serosanguineous drainage leaving the tissue less denuded with no maceration.

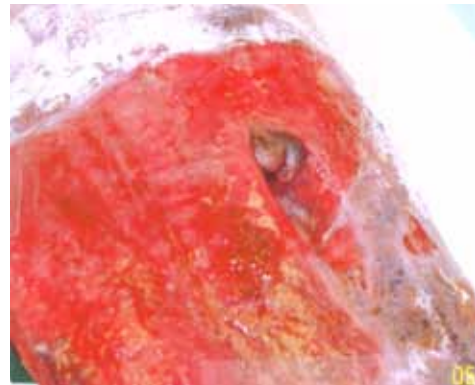


Photo 4

#### Photos #5 & #6:

(6/3/08) Nine days later the peri wound tissue displays early scarring and closure. No signs and symptoms of infection or yeast. Patient remained comfortable with treatment.



Photo 5



Photo 6

#### Photos #7 & #8:

(6/17/08) In less than 3 weeks the glycerine hydrogel

sheet\* was discontinued as peri wound tissue was healed enough to tolerate the transparent dressings of negative pressure therapy despite the client's comorbidities of low levels of albumin proteins, insulin dependent diabetic and complication of anemia.



Photo 7



Photo 8



Photo 9

#### Photo #9:

(7/1/08) The epidermis was healed so effectively by using the glycerine hydrogel sheet\* that it continued to tolerate the transparent dressings of negative pressure therapy for the full thickness wounds. Patient was dismissed to home care setting.

Photo 10  
Product Application



Photo 11  
Product Application

Photo 12  
Product Application



## References

Bryant, A. Ruth (RN, MS, CWOCN), Nix P. Denise (RN, MS, CWOCN) Acute & Chronic Wounds: Current Management Concepts, Third Edition Mosby, 2007

Pfliger-Fore, Jane (MD, CWS, FAPWCA) Advances in Skin & Wound Care Volume 17, #9 November/December 2004 pg 480-485 "the Epidermal Skin Barrier: Implication for the Wound Care Practitioner, Part II

## Products Used

\* Elasto-Gel™ Wound Dressing  
Negative Pressure Wound Therapy