



A CASE STUDY ON THE EFFECTIVENESS OF VELVERT, A NATURAL ANTIMICROBIAL DRESSING, IN TREATMENT OF EXCISIONAL DEEP SEBACEOUS CYST

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Abstract

Background: Healing of excisional deep sebaceous cyst wounds can be particularly difficult in patients with diabetes or hypertension due to complications such as tunneling and excessive exudate. Tunneling, which creates narrow channels extending into deeper tissues, can worsen healing and increase the risk of infection. Proper wound care involves cleansing, packing, and using antimicrobial dressings to support healing and reduce complications. This case study explores the use of Velvert, a natural antimicrobial barrier dressing, in treating a 65-year-old male patient with an infected ruptured sebaceous cyst. The patient, with a history of Type II diabetes and hypertension, underwent surgical excision, followed by Velvert application. Over seven follow-up visits, the wound showed significant progress, achieving 99.3% closure in 28 days. Velvert's ability to absorb exudate, maintain a moist environment, and its non-adherent properties contributed to faster healing, reduced infection risk, and increased comfort during dressing changes. This case demonstrates the effectiveness of Velvert in managing chronic wounds, particularly in high-risk patients, highlighting the role of advanced dressings in promoting wound healing.

Keywords: Sebaceous cyst, wounds, antimicrobial, dressing, wound closure

1. Introduction

Post-surgery sebaceous cyst wounds are challenging to heal, especially with complications like tunneling and excessive exudate [1]. Tunneling wounds require proper packing to promote healing and prevent abscess formation in deeper tissues [2]. Effective management of these wounds includes proper drainage, surgical debridement of necrotic tissue, and techniques such as packing or using drains to eliminate dead space. Antibiotic therapy, regular monitoring, and timely intervention are essential to avoid complications, ensure optimal healing, and reduce the risk of chronic, non-healing wounds [3].

This case study explores the effectiveness of Velvert in promoting the healing of post-surgical sebaceous cyst wounds, focusing on its ability to address these common complications. Velvert is a patented herbal antimicrobial barrier dressing.

2. Case Presentation

A 65-year-old male patient, with a history of diabetes mellitus and hypertension, visited the clinic due to a cyst located on the posterior side of his right shoulder. His vital signs were stable, showing a pulse rate of 90 beats per minute, a respiratory rate of 22 breaths per minute, and an SpO₂ level of 99% while breathing room air. The surgeon recommended surgical excision to drain the cyst and remove the infected tissue. The procedure was performed under local anesthesia in the Minor Operation Theatre, during which the cyst was removed, and its contents were drained, resulting in a U-shaped wound at the site of the ruptured sebaceous cyst. The wound measurements indicated a depth of 6.9 cm and a width of 3 cm.

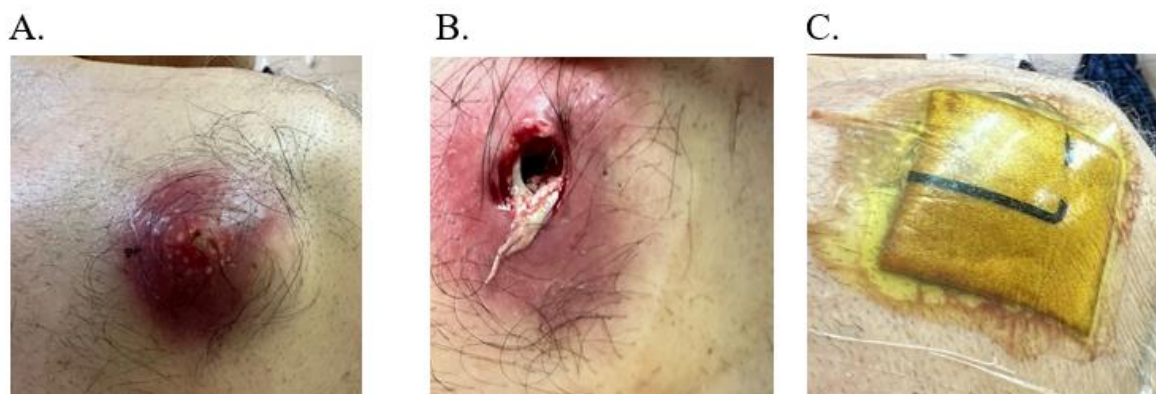


Fig :1- (A) Pictorial representation of the cyst on the back of the shoulder; (B) Image after initial pus drainage; and (C) Application of Velvert dressing at the wound site.

Management and outcome

On the day of the surgery, the area was thoroughly cleaned. A moist VELVERT advanced wound care dressing (5x5 cm) was placed within the wound cavity, followed by an additional layer of VELVERT dressing covered with a polyurethane dressing on top to provide enhanced protection and prevent infection. The patient was prescribed antibiotics and anti-inflammatory medications to lower the risk of infection and manage inflammation. Comprehensive instructions were provided regarding proper wound care and the importance of regular dressing changes to promote optimal healing. The VELVERT dressing was changed every four days, with a fresh dressing applied into the wound cavity each time to maintain a moist environment and support efficient healing. Wound size after each dressing was determined using ImageJ software and percentage of wound closure was recorded as shown in Fig. 3 After seven dressing changes over 28 days, the wound was completely closed, with no indications of infection or complications, demonstrating the efficacy of the wound care management plan.

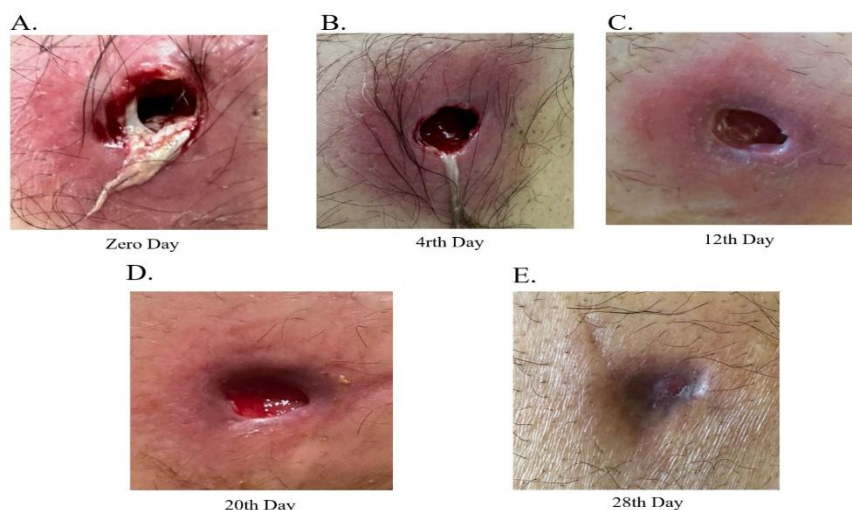


Fig. 2 Clinical evaluation of wound healing in control and tunneling wounds treated with Velvert. Advance Wound Care. (A). Photograph of control wound Day 0, (B.) Velvert treated wound at 4th Day, (C) Velvert treated wound at 12th Day, (D) Velvert treated wound at 20th Day and (E) Velvert treated wound at 28th Day.

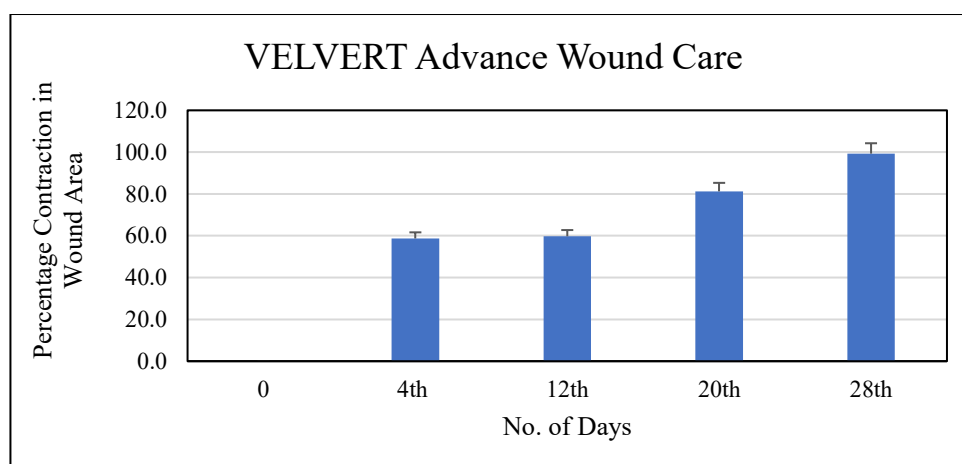


Fig. 3: Graphical representation of wound contraction (%) after application of Velvert advance wound care.

3. Discussion

Effective wound management after sebaceous cyst excision is been considered essential for optimal healing. Infection prevention, inflammation reduction, maintenance of a moist wound environment, and the ensuring of proper tissue regeneration are all been recognized as critical components of the healing process [4]. For diabetic or hypertensive patients, careful monitoring and targeted treatments like antimicrobial dressings are essential for reducing complications and promoting faster recovery [5]. The effectiveness of different wound care treatments varies significantly. In this case study, Velvert, a foam-based herbal antimicrobial dressing, demonstrated complete (99.3%) wound closure by the 28th day (Fig. 3) in a diabetic and hypertensive patient with an infected, ruptured sebaceous cyst. Similarly, the application of honey after pilonidal sinus excision accelerated wound closure and recovery. But honey application was associated with increased postoperative pain and analgesic use, without affecting wound odor or discharge [6]. Previous studies on pilonidal sinus excision have also shown that structured wound care, including debridement, antimicrobial rinsing, and hemoglobin application, achieves complete closure within an average of 76 days [7]. Traditional dressings, such as cotton, gauze, and bandages, have been widely used for wound management, often incorporating antiseptic agents like iodine, silver, or chlorhexidine to control bacterial growth [8][9]. However,

advanced dressings like Velvert offer superior wound healing by maintaining moisture, absorbing excess exudate, and providing antimicrobial protection, which is particularly beneficial for diabetic and hypertensive patients. Its non-adherent property also minimizes pain and discomfort during dressing changes, making it a more patient-friendly option.

4. Conclusion

This case study on excisional deep sebaceous cyst highlights the effectiveness of Velvert dressing in promoting faster healing while minimizing pain and complications. These findings emphasize the importance of advanced dressings in optimizing wound care, particularly for diabetic and hypertensive patients.

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6. Ethics approval and consent to participate

We certify that the study was performed in accordance with the 1964 declaration of HELSINKI and later amendments. Patients who provided informed written consent were recruited after obtaining IEC approval (IEC No: SGPGI-2024-12-001). Written informed consent was obtained from the patient for the publication of any potentially identifiable images or data included in this article.

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