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Clinical Problem: Wound pain is a significant issue for many patients with chronic wounds. 80% of patients with venous leg ulcers (VLUs) experience pain.¹ Its sequelae include fatigue, alterations in interpersonal relationships, sleep disturbances, and depression^{2,3}.

Methods: Seven patients with VLUs were treated with a transforming powder dressing (TPD) during an initial evaluation of this dressing's utility in wound management. All patients had failed previous attempts using various advanced dressings, bioengineered skin, or split thickness skin grafts. All had varying levels of non-adherence to the systemic plan of care – including inconsistency with compression garments/dressings, management of glucose, and routine, consistent dressing changes. Age of wounds varied from 3 to 27 years. All patients reported pain as an inhibiting factor with adherence with recommended regimen and wound sizes and had not decreased in several months.

Initial Application of Transforming Powder Dressing



Serendipity: Use of a Novel Transforming Powder Dressing to Treat Chronic Wounds Reduces Lower Extremity Wound Pain in Patients with Venous Wounds

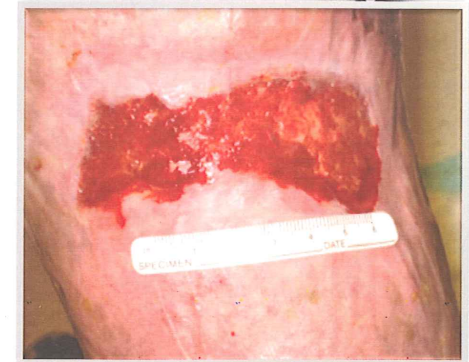
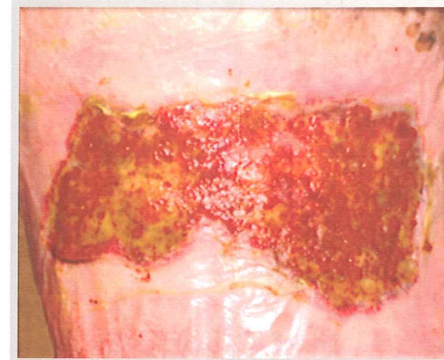


Initial Application of Transforming Powder Dressing

Presented Case: 62 year old male developed a right lower leg ulceration after post-phlebotic syndrome as a sequelae to a work accident. Co-morbidities include obesity, +MRSA, COPD, HTN, hyperlipidemia and Type 2 diabetes. Patient lives alone and refused home health services after receiving care from 5 different agencies. Patient has received a number of previous treatments for the last 27 years including STSGs, compression, NPWT, bioengineered skin, lymphedema, IV and oral antibiotics, pain management referral, and a variety of topical antimicrobial and non-antimicrobial dressings. Adherence to the treatment plan would vary but always would eventually fail. Pain associated with the wound itself, coupled with treatment pain often hindered compliance. The patient refused further surgical interventions to achieve wound closure. Pain levels were reported by the patient as 9-10 continuously.

At the time of application of the TPD followed by a nonadherent dressing to absorb drainage, the patient reported immediate reduction of wound pain to a level of 2. Within 2 weeks of continuous pain reduction, he agreed to light compression. He has steadily increased his compliance to the recommended treatment regimen and is now on full therapeutic compression levels but continues to refuse other modalities of care.

5 Months on Treatment Regimen of TPD with Compression



15 Months on Treatment Regimen

Results: All patients reported serendipitous and unexpected improvements in pain levels within 15 minutes of TPD application. As a result, this group of chronic wound patients increased compliance to the recommended treatment plan – including compression, the mainstay of VLU treatment. All patients reduced oral pain medications and had slow, steady decreases in wound size and drainage.

Conclusion: The mechanism of sudden reduction of wound pain after dressing application may have several explanations including bacterial toxin binding, high moisture vapor transmission rate, or Substance P blockade. Regardless of the physiological mechanism, the reduction of pain in this group, this serendipitous finding and its subsequent impact of patient adherence and quality of life measures warrants further study.

1. Nemeth KA, Harrison MB, Graham RD, et al. Understanding venous leg ulcer pain: results of a longitudinal study. *Ostomy Wound Management*. 2004; 50:364.
2. Woo K, Sibbald RG. Chronic wound pain: a conceptual model. *Advances in Wound and Skin Care*. 2008; 21(4): 175-188.
3. Gonçalves ML, de Gouveia Santos VL, de Mattos Pimenta CA, Suzuki E.
4. Konegare KM. Pain in chronic leg ulcers. *JWOCN*. 2004; 31:275-83.

* Altrazeal™ Transforming Dressing-ULURU, Inc.
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