

The Use of an Antimicrobial Moisture Management Dressing and Calamine Impregnated Two-Layer Compression System for the Treatment of Venous Leg Ulcers with Stasis Dermatitis

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Background

Topical zinc has been reported to have antiseptic, astringent, anti-inflammatory, antimicrobial, properties and is important for antibody production, immune cell function, and wound healing.^{1,2} Calamine when paired with zinc provides added benefits of itch relief and offers a soothing/cooling effect. Zinc or calamine-impregnated Unna's paste bandages have historically been used in the treatment of venous leg ulcers (VLUs).³ A major drawback of the traditional Unna boot is the lack of accommodation for changes in leg swelling and minimal exudate management.

Methods

A prospective study conducted in an outpatient wound care setting consisted of 5 patients with VLUs and stasis dermatitis. The use of an innovative Calamine Impregnated Two-Layer Compression System (CITLCS) was evaluated to gauge the efficacy in reduction of edema, wound size, and dermatitis symptoms, such as itching, pain, and burning sensation. Layer 1 consists of a soft foam roll impregnated with calamine, containing zinc. Layer 2 is a non-latex short stretch cohesive compression bandage. At the clinicians' discretion, following appropriate wound bed preparation, an antimicrobial moisture management dressing* was applied to the wound and the CITLCS was applied on top. The wounds were examined weekly for wound size, quality of wound/peri-wound tissue, exudate amount, inflammation, overall comfort and induration.

Case One



Baseline

After 2 weeks

Case Two



Baseline

After 2 weeks

Conclusions

Patients suffering with VLUs and stasis dermatitis exhibited in these two patient examples above can be difficult to effectively manage. The promising results of this evaluation demonstrates the need for additional research examining the role of topical calamine containing zinc in the treatment of wounds due to venous insufficiency and dermatitis

Results

The CITLCS was easy to apply. All 5 patients were adherent to therapy and tolerated the system well. No adverse events were noted. All patient outcome measurements improved over time with CITLCS therapy. It is the author's opinion that the CITLCS foam layer absorbed more exudate than seen with previous Unna boot use.

References

1. O'Connor S, Murphy S. Chronic venous leg ulcers: is topical zinc the answer? A review of the literature. *Adv Skin Wound Care*. 2014;27(1):35-44.
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3. Lullove E, Newton E. Use of Novel Two-Layer Bandage in the Treatment of Chronic Venous Hypertension. *Journal of the American College of Clinical Wound Specialists*. 2014;5:8-13.

Trademarked Items

CoFlex® TLC Calamine, Milliken Healthcare Products, LLC, Spartanburg, SC
*TRITEC™ Silver Dressing, Milliken Healthcare Products, LLC, Spartanburg, SC