Longitudinal Wale Elastic Compression Textile Controls Comorbid Wound Edema to Improve Wound Healing

Martin J Winkler MD FACS
Creighton University Mercy Wound Clinic, Omaha, Nebraska

Objectives

Because edema disrupts cellular physiology, similar to arterial ischemia and diabetes, wound healing is delayed. Comorbid wound edema is notoriously difficult for patients and caregivers to manage. Venous leg ulcers are a pure example of wounds that require 'edema control' via elastic compression. In advanced wound parlance care, treating edema is essential for optimal Wound Bed Preparation.[1]

Longitudinal elastic stockinet delivers mild compression via fuzzy wales that compress just 20% of the skin surface, creating furrows as water moves out of the subcutaneous fat, and is now available in Canada.[2,3]

This real world study evaluates a longitudinal wale elastic compression textile to control periwound edema: patient compliance, cost, safety on ischemic limbs, and impact on wound healing are measured.

Methods

Longitudinal wale elastic compression was used to treat refractory leg wounds in five patients. Photographs document presentation, treatment and healing.

Results

All wounds healed. Compression therapy was comfortable on painful dermatitis, easy to don and doff, easy to laundry and reuse, safe on ischemic skin, and a useful adjunct for wound bed preparation.

Conclusions

Longitudinal wale elastic compression appears anecdotally to be cost effective, comfortable and to improve wound healing rates.

References

1. Gary Sibbald, Liza Ovington, *Wound Bed Preparation 2014 Update,* Advances in Skin &Wound Care, March 2014 V27, Supplement, 1-13.

2. Debra Kozeny, K Stott, *Longitudinal yarn compression textile: An innovative treatment for leg swelling*. J of Vascular Nursing, 2007, V 25, p 3.

3. Sara Ross, Matthew Livingston, *A Comparison of Fuzzy Wale Longitudinal Elastic Compression to Elasticated Tubular Bandage Compression as a Tool in Reducing Lower Extremity Edema.* Symposium of Advanced Wound Care May 2015 Science Poster. Link accessed July 10 2015 http://compressiondynamics.com/wp-content/uploads/2015/06/Poster-A-Comparison-of-Fuzzy-Wale-Longitudinal-Elastic-Compression-to-Elasticated-Tubular-

Bandage-Compression-as-a-Tool-in-Reducing-Lower-Extremity-Edema.pdf

*EdemaWear®, & EdemaWear® LITE™, Quart Medical, Cambridge, Canada. Patent pending in Canada. U.S. Patent Numbers 8,034,013B2 & 8,641,653B2.

**Drawtex® SteadMed Medical, SteadMed Medical, Fort Worth Texas 76107

*** Vashe Hypochlorous Acid Solution, SteadMed Medical, Fort Worth, Texas 76107