

Use of a Novel Methylene Blue/Gentian Violet Open Celled Sponge with Compression to Treat Venous Insufficiency Ulcers

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Behavioral Objectives

1. The attendee will identify situations in which a bacteriostatic product will be of benefit in healing difficult Venous Insufficiency wounds.
2. The attendee will identify specific benefits to a novel bacteriostatic sponge in conjunction with compression therapy heal venous insufficiency ulcers.

Abstract

Venous Insufficiency ulcers represent a significant source of morbidity and mortality. Chronic bioburden in conjunction with numerous other factors makes healing these wounds even more difficult. Based on the multifactor nature of the etiologies of the failure to heal, a combination of products and modalities is often necessary to maximize healing. Hydrofera Blue is a highly absorptive sponge that combines Methylene Blue and Gentian Violet, two agents with known Bacteriostatic properties. In addition, its open celled structure provides capillary vacuum action to draw excess fluid and exudates from the wound bed. In combination with standard four layer compression therapy this product provides a powerful combination to heal difficult long term venous insufficiency ulcers.

A case is presented of a patient who presented with a long term venous insufficiency ulcer unresponsive to standard compression therapy. The addition of Hydrofera Blue as the primary wound dressing resulted in rapid healing of this previously recalcitrant wound.

Case Review

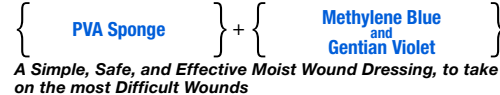
Patient is a 71 year old female with onset of venous insufficiency ulcer which started as a result of the patient scratching her ankle due to pruritis. The resultant wound increased in size. A swab culture was taken and revealed a Staphylococcus species and therefore a treatment with topical and oral antibiotics was recommended. After several weeks and no improvement, she was referred to The Wound Healing Center of Terre Haute. Arterial dopplers showed no evidence of peripheral arterial disease. Initial treatment consisted of Hydrogel and local segmental compression using an ace wrap and coban. The patient then developed swelling above the wraps and the hydrogel caused maceration of the surrounding wound tissue. New therapy was initiated with multilayer compression and Hydrofera Blue Bacteriostatic wound Dressing. This was applied to the wound and changed weekly. Over the next few weeks there was rapid improvement and healing of the wound.

References

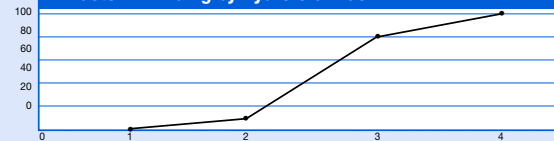
- Comments of the Negative Pressure created by the Capillary Flow Properties of the Hydrofera Blue Wound Dressing. Heyeng, T
- O'Brien JF, Grace PA, Perry IJ et al. Randomized clinical trial and economic analysis of four layer compression bandaging for venous ulcers. Brit J Surg 2003; 90: 794-798
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Working Matrix

Hydrofera Blue



Endotoxin Binding by Hydrofera Blue™



Properties of Hydrofera Blue & how it works:

- | | | |
|---|---|--|
| Hydrofera PVA Sponge <ul style="list-style-type: none"> Naturally Hydrophillic Extremely Soft "wet" Natural Vacuum Biocompatible Extremely Strong Micro Pore Structure Capture Affinity Used in treatment for >30 years | Methylene Blue <ul style="list-style-type: none"> Used Safely in treatment for >50 years Currently used in: <ul style="list-style-type: none"> IV Methemoglobinemia Blood Sterilization OP Site Markers Kills Gram Negative Organisms Preferentially Bonds to PVA | Gentian Violet <ul style="list-style-type: none"> Used Safely in treatment for >50 years Kills Gram Positive Organisms Preferentially Bonds to PVA Currently used in: <ul style="list-style-type: none"> IV Treatment of Chagas Disease Treatment of Candida Albicans Topical Antiseptic |
|---|---|--|

Features of Dressing Material

Hydrofera Blue has shown to be effective against the following organisms:

- Staphylococcus epidermidis
- Staph aureus
- Bacillus subtilis
- Serratia marcescens
- Yersinia enterocolitica
- E. Coli
- MRSA
- VRE
- Candidia albicans
- Pseudomonas aeruginosa
- Enterococcus faecalis
- Klebsiella pneumoniae
- Proteus mirabilis
- Proteus vulgaris
- Enterobacter aerogenes
- Enterobacter cloacae

Characteristics:

- Binds endotoxins
- Reduces pain
- Decreases bioburden
- Provides gentle negative pressure
- Flattens epibole
- Reduces edema
- Naturally hydrophilic
- Promotes moist wound therapy



7/6/06
Before Treatment with Hydrofera Blue



8/21/06
after 7 weeks of treatment with Hydrofera Blue



8/28/06
Hydrofera Blue changed once per week under compression



9/7/06
Healed



Hydrofera Blue in use on wound

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Pioneering Advancements in PVA Technology