

Hypochlorous Acid Treatment Response in a Refractory Diabetic Foot Ulcer Wound

1. Sahana Padumane, OMSIII, MS; 2. Dr. Kerry Thibodeaux, MD, FACS, CWSP, FACCWS, FAPWCA
1. Edward Via College of Osteopathic Medicine, 2. The Wound Treatment Center at Opelousas General

ABSTRACT

Conditions such as Diabetic Foot Ulcers can be difficult to achieve long-term healing in due to neuropathy, re-injury, and frequently comorbid atherosclerosis.

Our objective was to assess the cleansing efficacy of a commercial Hypochlorous Acid Spray (**Spectricept Skin and Wound Cleanser™**) provided by **Spectrum Antimicrobials** by monitoring the healing process in a patient with a refractory wound previously unsuccessfully treated with the current standard of care wound treatments. This patient's Diabetic Foot Ulcer achieved significant, lasting positive response after the incorporation of Spectricept Skin and Wound Cleanser™ into her treatment.

No biofilm formation occurred throughout the treatment process at the site observed. Due to the successful avoidance of common occurrence, the antimicrobial efficacy of the cleanser should be further studied using clinical trials.

INTRODUCTION

Diabetes Mellitus is a global health concern, with many systemic complications, including Diabetic Foot ulcers (DFUs). As many as one-third of patients with diabetes end up developing a foot ulcer in their lifetime. DFUs are the leading cause worldwide of non-traumatic lower limb amputations¹.

Diabetes Mellitus has a significant negative impact on the cardiovascular system, as shown by an increased incidence of peripheral arterial disease in patients with diabetes mellitus. This further complicates wound healing by leading to ineffective blood flow and thus compromised nutrient supply and immune access to the site of injury¹. Wound chronicity contributes to infection risk, which increases risk of osteomyelitis and amputation.

Polymicrobial biofilm formation is common in DFUs, limiting efficacy of antibiotic therapy and contributing to chronicity¹.

Spectricept Skin and Wound Cleanser™ is FDA approved for professional use in debridement and cleansing diabetic ulcers among a variety of other wound types.

REPORT OF CASE

65-year-old female patient with a history of Type 2 Diabetes Mellitus presented to the wound care clinic in December 2024 with the complaint of an ulcer originally from a spider bite.

X-ray 12/12/2024 showed mild degenerative changes

Three-phase bone scan 2/24/25 showed soft tissue inflammation, no osteomyelitis

4-4-25: R heel wound had resolved completely

5-20-25: Wound opened up again with drainage

7-21-25: First surgical debridement

8-25-25: Second surgical debridement

9-22-25: Patient was provided with of Spectricept Skin and Wound Cleanser™

- Physician note: "Molecular imaging was done today which shows significant biofilm formation I suspect this is playing a role in her chronicity."

9-29-25 Physician Note: "improved with the use of Spectricept solution and Mesalt."

3-2-26 Physician Note: "heel wound is completely closed. Patient will be discharged,"

The ulcer had shown minimal improvement prior to incorporation of Spectricept spray. despite regular follow up with the standard of care treatments of triamcinolone cream, Collagen matrix, Mesalt dressing, and off-loading.

Treatment was complicated by Diabetes Mellitus, Peripheral Arterial Disease, Biofilm formation, irregular follow-up adherence, and ineffective off-loading.

BEFORE SPRAY

At Presentation – 2.2 x 2.7 x 0 cm



AFTER SPRAY

After Second Surgical Debridement August 2025
3.7 x 3 x 1.2 cm



April 2025 - First Resolution



November 2025 - 3.2 x 3.8 x 0 cm



May 2025 - Re-opening of wound



March 2026 – Full Resolution



INDICATIONS

Professional Use

- Spectricept Skin and Wound Cleanser is intended for cleansing, irrigating, moistening, debridement and removal of foreign material including debris from wounds, and dermal lesions including stage 1-IV pressure ulcers, stasis ulcers, diabetic ulcers, post-surgical wounds, superficial second-degree burns, abrasions, minor irritations of the skin, diabetic foot ulcers, ingrown toe nails, grafted/donor sites and exit sites.

Over-the-counter Use

- Spectricept Skin and Wound Cleanser is intended for OTC use for cleansing, irrigating, moistening, debridement and removal of foreign material including debris from of skin abrasions, lacerations, minor irritations, cuts and intact skin

ACKNOWLEDGEMENTS & REFERENCES

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