

Silver-Ion-Containing Solution Aids in Chronic Wound Healing

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Background

Since chronic wounds are prone to bacterial infections, the clinician looks for more sustainable approaches to reducing bacterial growth than multiple courses of systemic antibiotics. Silver has been a known topical antimicrobial both historically and more recently in terms of silver-containing dressings.¹ Meta-analyses of silver-containing dressings show evidence of wound size reduction with use. We describe the use of a novel silver-ion-containing solution which releases ionic silver into the wound over time.²

Purpose

To gather observational data regarding a novel silver-ion-containing solution as an adjunctive therapeutic for chronic wounds.

Methods

We treated 6 chronic wound patients with a novel silver-ion-containing solution (SilverStream®, EnzySurge, Inc., Tel Aviv, Israel) at least once weekly over a 5-6 week study period in a single wound care center. The study included both male and female patients aged 47-81 with chronic wounds related to venous disease and diabetic foot disease. Patients continued to receive other standard therapies for their wound type. In this pilot study, the ionic silver solution was topically administered via a standard 3mL syringe and a 22-gauge needle with an average total volume of 9-12mL.

Investigation

No adverse reactions were experienced by any of the patients, and 6/6 patients reported wound improvement. Average wound area was 10.6cm² (2cm-25cm). While 5/6 patients demonstrated clinical signs of infection (erythema, prurulent drainage, pain, non-granulating wound beds) on the first treatment, 0/6 patients demonstrated signs of infection 5-6 weeks after their first treatment (100% reduction). The % reduction in wound size ranged from 6.6% to 100%, with an average % reduction in wound size of 70% and with 3/6 patients undergoing complete healing during the pilot study.

Conclusions

The silver-ion-containing solution may be a powerful adjunctive therapeutic for chronic wounds with the potential to decrease signs of infection and reduce wound size and merits study in a prospective randomized clinical trial.

References:

1. Leaper DJ. Silver dressings: their role in wound management. *Int Wound J* 2006;3:282-94.
2. Carter MJ, Tingley-Kelley K, Warringer RA. Silver treatments and silver-impregnated dressings for the healing of leg wounds and ulcers: A systematic review and meta-analysis. *JAAD* 2010;63:668-79.

Pt A

Baseline

Pt B



3 weeks



6 weeks

