

The Use of Silver Alginate Controlled-Release Antimicrobial Powder in the Treatment of Wounds

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Purpose: To assess the efficacy of topical silver alginate controlled-release antimicrobial powder dressings in healing wounds.

Methods: Thirteen patients, ages 86 ± 9 years, 84.6% male, with 27 wounds of 193 ± 172 days duration were selected from our limb preservation clinic. Wound etiologies included venous (15), pyoderma gangrenosum (2), arteriovenous (1), arterial (5), friction (2) or traumatic (2). Silver alginate antimicrobial controlled-release powder (Arglaes Silver Alginate Powder, Medline Industries, Mundelein, IL) was applied directly to the wound beds and the wounds were followed weekly for 12 weeks. Efficacy, identified as complete epithelialization (healed), was the primary outcome assessed.

Results: After 12 weeks, 74.1% of the wounds healed. Additional outcomes include healthier granulated wound beds along with reduction in malodor, drainage, and pain.

Conclusion: In this small case study, topical controlled-release silver alginate antimicrobial powder dressings demonstrated a strong efficacy in treating lower extremity wounds of mixed etiologies. With antimicrobial resistance on the rise in soft-tissue wound infections, topical silver alginate antimicrobial powder dressings may help facilitate wound healing and prevent infections. Further studies are planned involving the measurement of wound bioburden following silver controlled-release antimicrobial powder therapy.