



Evaluation of the Use of a Silver Collagen Amorphous Gel in the Healing of Post Surgical and Dehisced Lesions

Presented by: Kathryn Khandaker, RN, BSN, CWCN and Deanna Sue Kohl, RN, BSN, CWOCN, CFCN



Introduction: Wound dehiscence and non-healing of post surgical wounds is a common problem particularly when related to cancerous lesion excision. Three patients were followed in the outpatient wound clinic at Community Hospitals and Wellness Centers in Montpelier, Ohio for a period of six weeks. These case studies were produced in conjunction with pictorial documentation to follow their healing process.

Methods: The wounds were cleansed with sterile water. A thin layer of an amorphous Group I bovine collagen based gel with nanocrystalline as well as ionic silver was painted into the wound base using a cotton tipped applicator. The wounds were then covered by traditional means. The case studies are as follows:

Case study #1: A 42 year old female with a history of hypotension, cardiac arrhythmia and early menopause presented to the clinic with a three-week-old left medial leg laceration which had been previously sutured and dehiscd. Prior treatment included wet to dry gauze twice daily. The wound bed was dry and 95% necrotic tissue on the base. The silver collagen gel was applied and then covered with adhesive foam and changed every three days. Unfortunately, the foam caused a periwound rash after one week and the secondary dressing had to be changed to dry gauze with dressing frequency being changed to every two days. A heal rate of 50% was achieved after four weeks with total resolution within six weeks from the start of treatment.



Case study #2: An 87 year old male with a history of prostate cancer, hypertension, hypercholesteremia, pacemaker insertion and squamous cell carcinoma of the ear and scalp presented to the clinic two months post surgical excision of the scalp lesion with non-healing of the said area. Prior treatment included the use of a topical emulsion gel as well as antibiotic ointment. The wound bed was 100% dry necrotic tissue. The silver collagen gel was applied and covered with an adhesive foam and changed every three days. After one week, 75% of the wound bed was autolytically debrided and by week four, the wound was healed.



Case study #3: A 76 year old female with a history of pelvic and hip fracture, anxiety, depression, COPD, osteoporosis, urinary retention, esophageal reflux, venous insufficiency and basal cell carcinoma of the scalp presented to the clinic one week post surgical excision of the scalp lesion. Prior treatment included the use of a topical emulsion gel. The initial visit revealed 50% dry, necrotic tissue, 10% dry red tissue and 40% bone exposure of the skull. The silver collagen gel was applied along with a non-stick pad and changed daily. After two weeks, the non-stick secondary was changed to an absorbent foam and then changed every three days. Fifty percent of the wound was healed by week seven with 80% granular tissue noted in the wound base and now only 10% of the bone exposed. At three months, the wound was 95% healed. Unfortunately, the wound was unintentionally reopened when the secondary was changed to a traditional adhesive bandage. The wound continues to be followed for healing progress.





Conclusion: The silver collagen nanocrystalline/ionic based gel is an excellent choice for post-incisional and lesion healing.

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