

Use of CurX Gel in Patient with History of Delayed Healing

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Case Study

This 76-year-old white female presented to clinic 24 hours after sustaining a 1.0 x 5.0 x 0.1mm laceration to her right shin on 11/24/15. She relates that she was standing near a wood pile when some wood fell and cut her. Radiographs were negative for fracture and ultrasound found no evidence of retained foreign body. The wound did not probe to bone. Her tetanus status was brought up to date. The wound was cleaned with sterile saline, edges re-approximated, and closed with retaining sutures and simple closure sutures in local ER.

Patient's medical history was significant for diabetes mellitus type 2 insulin dependent, CKD-4, ASCVD, CABG-4 vessel in 2015. Notably, she relates a history of poor and delayed wound healing from graft site of right lower limb which took over 3 months to heal from March – June of 2015. She also suffers from peripheral neuropathy HTN, hyperlipidemia, obesity, PVD/PAD.

Method

Patient was seen in clinic and expressed concerns due to her history of delayed healing. CurX Gel was applied on 11/25/15 with a standard dry, sterile dressing. Patient was instructed to return weekly for dressing changes.

Results

The simple sutures were removed on 12/2/15. The wound showed no signs of dehiscence or infection. Edges were well approximated and surrounding tissue was appropriate to temperature and color. CurX continued to be used exclusively.

Retaining sutures were removed on 12/7/15. The wound was showing progressing epithelialization and had significantly decreased in size. The wound was dressed with Band-Aid and CurX gel for home use until completely healed.

By Week 4, the patient was healed. There were no issues with wound healing or closure in a patient who had previously taken 12 weeks to heal from a saphenous graft harvest site. No revascularization had been done nor had any other health factor changed since the graft. This indicates that the use of CurX played an integral role in the closure of this wound.



11/24/15: Initial injury in emergency room prior to closure



11/25/15: CurX used within 24 hours of closure



12/2/15: Simple closure sutures removed



12/7/15: Retaining sutures removed

Discussion

Skin tears in PVD patients can be particularly difficult to heal. The atherosclerotic changes in the vessels result in an impaired blood supply to the lower extremity. This impedes healing by restricting the body's ability to direct oxygen and fibroblasts to the area. With her multiple systemic health issues placing the patient at an ASA 4 score, she is not a good candidate for revascularization surgery.

The only factor that was changed in the patient's wound care for this laceration was the introduction of topical CurX Antimicrobial Gel. With use of this product, the patient showed no signs of delayed healing. Her wound granulated and epithelialized as would be expected of a person without multiple systemic diseases.

Classification	Description
ASA 1	Healthy patients
ASA 2	Mild to moderate systemic disease caused by the surgical condition or by other pathological processes, and medically well-controlled
ASA 3	Severe disease process which limits activity but is not incapacitating
ASA 4	Severe incapacitating disease process that is a constant threat to life
ASA 5	Moribund patient not expected to survive 24 hr with or without an operation
ASA 6	Declared brain-dead patient whose organs are being removed for donor purposes

Conclusion

CurX Gel is a novel topical treatment that supports healing in difficult to heal wounds. Further research should be explored with patients suffering with delayed healing or stalled wounds, particularly those patients who have multiple systemic diseases affecting healing. CurX appeared to have facilitated non-delayed healing while keeping the wound environment moist without macerating. Additionally, the gel stayed in contact with the wound and effective for a week without requiring dressing change, which is a benefit for patients with limited resources and transportation difficulties.