

## **The Use of CurX Antimicrobial Gel**

### **Treatment of a Non-Healing Diabetic Ulcer**

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#### **Introduction**

A 53 year-old female with a medical history notable for Type 1 diabetes and hypertension presented to my office with a plantar ulcer at the 4th metatarsal head (MTH) of the right foot. The etiology of the wound was explained to the patient in perspicuous terms as such; her 4th MTH was hypertrophied at the plantar condyle and the entire 4th metatarsal (MT) bone was plantar flexed. This resulted in the formation of an intractable porokeratoma which ulcerated due to the weakness of the underlying tissues (mal perforans). In this case study, the patient in question had recently been hospitalized for this condition and was referred to our office upon her discharge from the hospital.

#### **Physical Examination Findings**

Patient had a full thickness Wagner grade 2-3 ulceration of the sub 4th MTH. The surrounding tissues were erythematous and edematous. The wound penetrated through the deep fascia to the muscle layer. Surrounding the elliptical wound was thick hyperkeratotic tissue. There was undermining of the wound edges, no malodor, and no purulence. There was extensive sloughing with maceration of the underlying tissues. The wound base was impregnated with extensive fibrin and slough. Radiographic images taken at the initial visit were negative for osteomyelitis and gas in the tissues. The staging of this wound was done by using the Wagner-Meggitt Classification.

#### **Course of Treatment**

Using a sterile #15 scalpel blade and Adson Brown tissue forceps, the wound was meticulously debrided of all devitalized tissue until a healthy bleeding ulcer bed was produced. Small minor hemorrhages were controlled with lumicaïn. The wound was thoroughly cleansed with sterile saline solution. CurX Antimicrobial Gel was applied to sterile gauze and a compression dressing was applied and secured in place with 3" Coban Self-Adherent Wrap. A one-week follow-up was scheduled.

#### **Pressure Offloading**

An OrthoWedge surgical shoe was applied for pressure relief and to help accommodate the healing process. The patient was instructed to reduce her everyday activity until the ulcer had completely healed.

## Results

Week 1 visit showed remarkable reduction in wound depth and width. There remained some residual swelling of the foot and leg. All necrotic tissue and hyperkeratosis was debrided using a sterile # 15 scalpel blade and Adson Brown tissue forceps. The area was thoroughly cleansed with sterile saline solution. CurX Antimicrobial Gel was re-applied to sterile gauze and a compression dressing was re-applied and secured with 3" Coban Self-Adherent Wrap. Week 2 visit showed continued visible reduction in wound size, with fibrotic tissue reduced and resolved periwound erythema. The same dressing regimen was used with CurX Antimicrobial Gel and Coban wrap. Week 3 visit showed wound resolution with complete closure achieved.



## **Conclusion**

CurX Antimicrobial Gel showed remarkable efficacy in quickly and safely achieving complete closure of this deep ulceration. Furthermore, the viscosity of the product enabled extended, week-long dressing change intervals, increasing the likelihood of compliance as compared to traditional hydrogels, as hydrogels require patients or caregivers to interact with the wound on a near daily basis. CurX Antimicrobial Gel has been shown economically and clinically superior to traditional primary dressings in this case study.