



## Preventing Major Amputation due to Diabetic Foot Infection

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### Patient History

56 year old male who developed an ulcer on the plantar aspect of his rt. great toe. He had the ulcer for over 2 years and did not seek treatment until 1 year ago. Treatment at that time was with various local dressings. He had a bone scan which was positive for osteomyelitis and was given 6 weeks of IV antibiotics. Despite these treatments the ulcer failed to show any signs of healing.

### Past Medical History

Positive for hypertension. Negative for diabetes. He admitted to smoking a pipe occasionally. He was an active outdoorsman without any other medical problems.

### Physical Exam

He had normal pulses throughout both lower extremities. He had neuropathy of his feet. The ulcer measured 1.8x1.7x0.2cm.

### Work up

HgbA1C was 11.8. Bone Scan was positive for osteomyelitis.

### Before Treatment



### Impression

Ulcer rt. great toe with underlying chronic osteomyelitis. This was complicated by his undiagnosed and untreated diabetes mellitus, neuropathy and lack of off-loading.

### Patient's Course

The patient was sent for surgical debridement of the ulcer. After the debridement the foot became infected. He developed cellulites extending up his medial foot and lower leg. He was admitted to the hospital. IV antibiotics were started and he underwent surgical debridement of his foot. His condition continued to worsen and a partial amputation of his foot was recommended. The patient refused amputation and presented to our clinic with open necrotic wounds of his great toe and medial distal foot with exposed tendons.

### During Treatment



### During Treatment



### Treatment Plan

The patient had multiple predisposing factors contributing to this chronic ulcer.

1. Chronic Refractory Osteomyelitis with cultures identifying MRSA sensitive to IV Vancomycin.
2. Necrotic tissue requiring surgical debridement with follow up enzymatic debridement.
3. Diabetes requiring dietary and insulin control.
4. Off-Loading to prevent further trauma. This was accomplished using crutches and a wheelchair.
5. Edema requiring proper elevation of his foot above the level of his heart.
6. Hyperbaric Oxygen Therapy to correct local tissue hypoxia.

## During Treatment



The wound on the medial aspect of his foot required an additional 2 weeks of treatment due to the exposed tendon.

## During Treatment



Hyperbaric Oxygen Therapy helped the development of healthy granulation which covered the exposed tendon. At that point the skin closed rapidly and all the patient's wounds healed completely.

## After Treatment



The ulcer of the rt. great toe healed after approximately 6 weeks of treatment.

## After Treatment



### THE PRIMARY CARE PHYSICIAN SHOULD REFER THE PATIENT FOR ADVANCED WOUND CARE IN A WOUND HEALING CENTER IF THE PATIENT:

- Has a wound that persists for more than 30 days after treatment
- Has a wound and Reynaud's phenomenon
- Has purpura
- Has a wound and hypertension
- Has gangrene or necrotic tissue in a wound
- Has a wound and diabetes

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## About Precision Health Care

Precision Health Care is a comprehensive wound healing and hyperbaric medicine service organization dedicated to the development of state-of-the-art hyperbaric and wound healing centers through partnership and collaboration with our affiliate hospitals.

Community-based and patient-focused, we are driven by this mission philosophy: To provide select hospitals safe, comprehensive, compassionate wound healing and hyperbaric services for patients in need.

## Questions or Comments?

### Contact us:

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## About the Author



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