

MAYO CLINIC

### Background

The use of honey for the treatment of wounds can be traced to ancient Greece. The archaeological site of Knossos (5,000 B.C.), on the island of Crete, recorded the utilization of honey in the treat wounds. The development of Leptospermum honey alginate has emerged as a viable wound care dressing and was evaluated in lower extremity wounds.

### Methods

The case series was done for the evaluation of three patients with chronic recalcitrant lower extremity wounds. Patients had comorbidities consisting of diabetes mellitus, peripheral neuropathy, rheumatoid arthritis, chronic critical limb ischemia, venous disease, end stage renal disease, and chronic MRSA colonization. Weekly debridement and additional adjunctive therapies continued in the patient's wound care protocol. The only change was the removal of the previously utilized advanced wound dressing with the addition of the Leptospermum honey alginate dressing. Dressings were changed every one to three days, depending on the amount of exudate the wound produced. Patients were evaluated weekly with wound measurements, assessment for recurrence of infection and rate of healing. Patients were followed for eight weeks in this pilot evaluation.

#### Results

Case 1:78 yo female with type 2 diabetes mellitus, PAD, peripheral neuropathy, and ESRD on dialysis. Neuropathic ulceration under the first metatarsal head without exposure of bone. Minimal ambulation, however, used the foot to pivot and transfer from wheelchair routinely. Wound volume reduction by 30 percent in 4 weeks 65 percent in 8 weeks and total healing in 16 weeks. There was no occurrence of infection during the treatment process.

Case 2: 74 y.o female with diabetes, peripheral neuropathy, rheumatoid arthritis, venous disease and small vessel arterial disease. Chronic leg wound of 3 years duration with chronic colonization with MRSA. Wound was very painful with heavy exudate. Responded well in first four weeks with less drainage, pain and 40 percent wound volume reduction. By the eight week, the wound had reduced by 65 percent with minimal pain, healthy base and no exudate.

Case 3: 72 y.o. male with venous disease, peripheral neuropathy, and colonization of MRSA. Lateral ankle ulceration of 18 months duration recalcitrant to standard of care therapy. There was moderate exudate and pain from exposure of sural nerve fibers. At week four, there was a 40 percent reduction in wound volume and significant reduction in pain. Complete healing was noted in week eight.





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# **Utilizing Leptospermum Honey Alginate in the Treatment of Recalcitrant Lower Extremity Ulcerations**

## Steven J. Kavros, DPM

Gonda Vascular Wound Healing Center, Mayo Clinic, Rochester, MN



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