LIMB AT RISK: USE OF ACTIVE LEPTOSPERMUM HONEY FOR THE MANAGEMENT OF AN INFECTED FOOT WOUND COMPPLICATED BY CELLULITIS

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PROBLEM
A 72-year-old diabetic female noted rapid onset of a reddened area on the dorsal surface of the foot. She presented to the hospital and was diagnosed with cellulitis.

Immediate care included sharp debridement and antibiotic therapy. She was transferred to rehabilitation for continued antibiotic therapy and local wound care.

The wound bed was covered with thick slough. The patient was neuropathic; therefore she experienced no pain, but periwound edema, erythema and warmth were present.

METHODS
A multidisciplinary plan of care was developed to optimize healing outcomes.

RATIONALITY
Type 2 diabetes mellitus combined with local and systemic risk factors placed this patient at high risk for lower extremity amputation.

Rapid debridement of slough and necrotic tissue was indicated to minimize complications and prepare the wound bed for healing.

METHODS
A multidisciplinary plan of care was developed to optimize healing outcomes.

Debridement Properties of Honey

Active Leptospermum HICADs promote debridement as follows: A moist environment facilitates autolytic debridement.

The high sugar content of honey promotes movement of fluid from an area of high concentration to an area of low concentration, thus promoting an outflow of fluid. This osmotic effect draws lymph fluid from the deeper tissues and constantly bathes the wound bed.

Proteases within the lymph fluid contribute to the debriding activity of honey.

A likely explanation for honey's debriding activity is the conversion of inactive plasminogen to plasmin, an enzyme that breaks down the fibrin that tethers slough and eschar to the wound bed.

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RESULTS

Rapid, immediate liquefaction of denuded tissue was noted within several days of initiating active Leptospermum HICADs. Edema, erythema and warmth of the surrounding tissue was rapidly reduced.

CONCLUSION

This patient with a "limb at risk" for amputation experienced rapid reduction of surrounding tissue was rapidly reduced.

Type II diabetes mellitus combined with local and systemic risk factors placed this patient at high risk for lower extremity amputation.

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