

Squamous Cell Carcinoma of the Head and Neck: Using Active *Leptospermum* Honey for Wound Management and Odor Control

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PURPOSE:

The purpose of this investigation was to trial active *Leptospermum* honey impregnated calcium alginate dressings (HICADs) for wound management and odor control for several patients with exuding and/or malodorous wounds related to squamous cell carcinoma (SCC) of the head and neck

LEARNING OBJECTIVES:

1. The learner will be challenged to integrate new evidence into day to day practice for individuals with highly exuding, malodorous wounds.
2. The learner will list the characteristics of *Leptospermum* honey that make it ideal for wound management and odor control.
3. The learner will integrate decision making strategies for using *Leptospermum* honey based products in clinical practice.

PROBLEM:

SCC, a malignant tumor of the epidermal keratinocytes, is the second most common form of skin cancer. It arises on the sun exposed areas of skin in persons of middle and older age and may present a daunting challenge for clinicians who need to provide wound management and odor control. Presence of malodor is a reminder the underlying disease process and may contribute to low self esteem, embarrassment, depression, and social isolation.

References:
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Hampton, S. (2008). *Malodorous fungating wounds: how dressings alleviate symptoms*. British Journal of Nursing Tissue Viability Supplement, 14(19), S31-S10.
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Molan, P. (2002). *Re-introducing honey in the management of wound and ulcers-theory and practice*. Ostomy/Wound Management, 48(11), 28-40.

METHODOLOGY:

Two patients with ulcerated, exudative skin lesions and/or malodor presented to the clinic. A diagnosis of SCC was confirmed and radiation therapy (IMRT) commenced. Both patients received active *Leptospermum* HICADs with gauze or non-adhesive dressings. Initially dressings were changed twice daily, then the frequency was adjusted according to the amount of exudate.

DEODORIZING PROPERTIES:

Case one was characterized by overwhelming malodor emanating from the wound. Honey has been reported to effectively reduce, and even eliminate, odor in acute and chronic wounds. Method of action: Bacteria preferentially metabolize glucose instead of amino acids eliminating the odor of ammonia. This, in combination with the antimicrobial action of honey, eliminates odor. Wound odor was immediately eradicated with the use of the HICAD.

RESULTS:

Malodor was eliminated and rapid wound contraction and healing was observed in both cases. This eliminated the need for surgical wound closure. Both patients reported satisfaction with use of the *Leptospermum* honey dressings.

CONCLUSION:

Further investigations using active *Leptospermum* honey calcium alginate dressings for wound management and odor control are indicated.

CASE 1:



3/12/08

Rapidly growing SCC right post-auricular area involving the eustachian tube, external auditory canal, and styloid process. Radiation therapy (IMRT) commenced. Excessive malodor and exudate present. Absorbent cover dressings initiated. Active *Leptospermum* HICADs initiated on 3/26/08.



4/2/2008

IMRT resulted in necrotic tissue sloughing. Excess exudate was managed with frequent cover dressing changes (1-2X daily), and malodor was completely eradicated with use of HICAD.



4/16/2008

Frequency of HICAD decreased to once daily. Autolytic and osmotic driven debridement prepare the wound bed.



5/9/2008

Wound contraction and epithelial edge advancement preclude the need for surgical repair.



5/27/2008

Complete wound closure with minimal scar tissue.

CASE 2:



May 2

SCC of the left cheek with eschar and slough.



June 4

Wound with slough and eschar. Active *Leptospermum* honey dressing* initiated



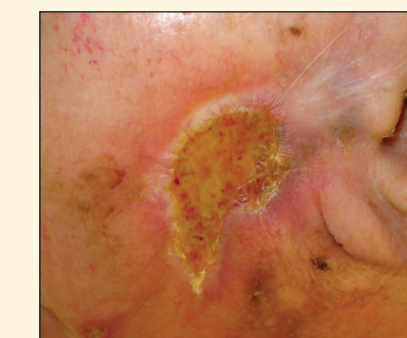
June 18

Eschar and slough cleared by autolytic and osmotic debriding properties of dressing



July 2

Distal wound clean, superior aspect dry crusted tissue



August 26

Active *Leptospermum* honey dressings dramatically affected the healing process of this large left cheek defect