The impact of MEDIHONEY® on Deep Partial Thickness Burns

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Agenda

- My Clinical Practice
- Why MEDIHONEY®? What can it do?
- A Review of Cases
- Impact on My Practice
- Tips & Pointers
- Q&A
My Clinical Focus

• Treatment of Burn Injuries in both pediatric and adult patients
• Our goal is to heal wounds in the shortest period of time
• Limit functional consequences while optimizing cosmetic outcomes
MEDIHONEY®
What is it? What can it do?

• Derived from the pollen and nectar of the *Leptospermum* species of plant in New Zealand

• Unique among honey – effectiveness is maintained even in the presence of wound fluid

• Supported by over 160 pieces of evidence, including Randomized Controlled Trials, Peer-Reviewed articles and posters, demonstrating efficacy in the management of wounds and burns.\(^1\)

• Two key mechanisms of action create an optimal environment to promote the removal of devitalized tissue and healing – High Osmolarity and Low pH

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1. MEDIHONEY Reference List. Derma Sciences..
High Osmolarity

MEDIHONEY® produces an Osmotic Effect pulling fluid from deeper tissue to the wound surface

Works with the body’s natural processes to bathe the wound bed promoting the removal of devitalized tissue2,3

Wound healing favors an acidic environment

MEDIHONEY®

pH 3.5-4.5

Neutral

The low pH of MEDIHONEY® (3.5-4.5) helps to lower the pH within the wound environment\(^4-5\), which has been shown to have wound healing benefits.\(^6\)

Different Configurations to assist Wound Bed Preparation

- MEDIHONEY® Paste
- MEDIHONEY® Gel
- MEDIHONEY® HCS
- MEDIHONEY® Calcium Alginate
- MEDIHONEY® Honeycolloid
Background & Case Review
Early excision and autologous grafting remains as the gold standard for third degree burns and deep partial thickness burns, which are unlikely to heal in 3 weeks. However, in clinical practice this approach may not be ideal for:

- Frail, elderly patients
- Patients with significant co-morbidities in whom anesthesia may not be desirable
- Relatively small burns
- Certain areas of the body (such as the face, scalp or genitalia)
- Patients that decline surgery

In these cases, providing an environment that would hasten debridement and removal of devitalized tissue would facilitate healing and wound closure.

BACKGROUND

• One study compared the effectiveness of a honey dressing to SSD on wound healing in patients with first and second degree burns. Patients treated with honey dressings had a significantly shorter duration of healing compared to patients treated with SSD⁹

• These studies provide evidence that honey may be an effective treatment option for partial thickness burns

• There are no studies exploring the applicability of these findings to burn injured patients in the United States

• This Case Review explores examples of our clinical experience with MEDIHONEY® in the treatment of burn patients since 2013, which has prompted our initiation of an RCT on this product

Case 1 – Deep Partial Thickness Burn to Forehead

DAY 1

- 47 year old female patient who experienced burns secondary to hair grooming product
- Treatment: MEDIHONEY® Gel applied three times a day
Case 1 – Deep Partial Thickness Burn to Forehead

Area Healed

Epithelial edge advancement

Clean, healthy granulation tissue

DAY 16
Case 1 – Deep Partial Thickness Burn to Forehead

DAY 36

Re-Epithelialization Complete

Pigmentation returning
Summary

Wound closure, hair follicle regrown, pigmentation returning after 7 weeks of MEDIHONEY® Gel treatment
No hypertrophic scarring
Case 2 – Deep partial thickness burns to Face

Day 1

- Patient attempted to light a cigarette while on oxygen
- Patient also experienced burns to left arm when clothes caught on fire
- OR procedure – Ultrasonic debridement performed on face
- MEDIHONEY® Gel initiated after surgery – daily changes
Case 2 – Deep partial thickness burns to Face

Day 3: Remaining eschar is being softened and liquefied by the MEDIHONEY®

Day 4: As eschar is softened, it is easily removed, revealing advancement in healthy tissue formation
Case 2 – Deep partial thickness burns to Face

Day 5: wound continues to improve

Day 11: Nose is healed; pink healthy skin among remaining devitalized tissue. Continued Gel to complete healing.
Case 2 – Deep partial thickness burns to Face

Summary

Post ultrasound debridement, MEDIHONEY® Gel promoted continuous removal of devitalized tissue and rapid healing in less than 2 weeks.
Case 3 – Deep Partial Thickness Burn impacting hair line

Day 1

- 54 year old female
- Deep burns to forehead/face secondary to flame burns caused when hair caught fire
- Surgery would jeopardize follicle regrowth and return of normal hairline.
Case 3 – Deep Partial Thickness Burn to Forehead

- Daily application of MEDIHONEY® Gel
- Wound healing, follicle regrowth closing in toward deepest part of burn
Case 3 – Deep Partial Thickness Burn to Forehead

Summary

- Less than 2 months, wound healing even at deepest area of injury
- Patient will retain normal hairline
- Wound continued to completely fill in as observed in further clinical follow up – however, no image taken
Case 4 – Stage IV Lung Cancer Patient with contact burns

Day 1

- 82 year old male with burns secondary to heating pad
- Not a surgical candidate
- MEDIHONEY® Gel applied daily and covered with non-adherent dressing
Case 4 – Stage IV Lung Cancer Patient with contact burns

Day 21 (3 weeks)

• Significant area of wound is closed.
• Small areas - continued wound edge advancement

Day 42 (nearly 6 weeks)

• Wound closure
Case 5 – Deep Burns in Immunosuppressed Crohn’s Patient

Initial Presentation
3 Weeks Post Burn

- 72 year old female with Crohn’s, CRF, short bowel syndrome
- Currently on TPN, COPD and high dose prednisone
- Burns caused by heating pad to left hip
- Patient referred to clinic 3 weeks after injury
- Area covered with 95% yellow slough
- Initiated MEDIHONEY® Gel and non-adherent dressings
Case 5 – Deep Burns in Immunosuppressed Crohn’s Patient

Day 10 after initiation of treatment

- Slough greatly reduced
- New granulation tissue and wound edge advancement observed
Case 4 – Deep Burns in Immunosuppressed Crohn’s Patient

Day 25 (Wk 3 after initial treatment)

- Increase in granulation tissue

Day 65 (Wk 9 after initial treatment)

- Continuous progress as wound edges continue to advance to close this injury
Case 5 – Deep Burns in Immunosuppressed Crohn’s Patient

Day 75
(Month 3 after initial treatment)

- Wound closure with MEDIHONEY® alone
- No complications experienced by immunocompromised patient
- No other intervention or antibiotic required
Case 5 – Deep Burns in Immunosuppressed Crohn’s Patient

Summary

Complete epithelialization without surgical intervention or complications in patient on corticosteroids in 3 months
No hypertrophic scarring
Case 6 – Deep Partial Thickness Burn to Hand

Day 4
- 47 year old female with burns to right hand caused by hot grease
- Superficial and deep partial thickness burns
- Daily MEDIHONEY® Gel applications for complete healing in less than 3 weeks.

Day 19
Case 7 – Deep Partial Thickness Burn in Pediatric Patient

- 2 year old male with burns caused by curling iron
- Daily MEDIHONEY® Gel applications, covered with non-adhering dressing
- Rapid healing in less than 2 weeks
Impact of MEDIHONEY® to Practice

- Effective intervention for Deep Partial thickness burns
- Ideal patients:
  - Elderly, children, malnourished, cancer
  - Burns to face
  - Palms of the hand, plantar aspect of feet
- Accessible – Patient access and affordability
TIPS & Pointers

- MEDIHONEY® Gel contains gelling agents making it more stable at body’s temperature than Paste.
- Paste is more fluid with no gelling agents; useful for burns affecting mouth and may be accidentally swallowed.
- A cover dressing will keep area moist/prevent the Gel product from drying out. If unable to cover area (i.e. face), product needs to be re-applied every 6 hours.
- For wounds with small amount of drainage, the MEDIHONEY® HCS dressing is very effective, comfortable and no cover dressing needed.
Questions?

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