PURPOSE

To assess the impact of Active *Leptospermum* Honey* (ALH) wound dressings on early presentation versus late presentation wounds for effective wound healing and closure. There are multiple studies involving hundreds of patients over the last several years; including RCTs which demonstrate the clinical efficacy of ALH in either chronic or late presentation wounds.¹⁻³ We chose to investigate the effectiveness of how we use ALH in early presentation wounds to promote healing and closure in a timely manner.

METHODOLOGY

Charts were retrospectively reviewed for patients undergoing treatment with ALH products over a 6-8 month time frame at our wound care practice. In the early presentation group (\leq 3 weeks from injury or surgical procedure) we had six patients with wounds of the following types: a diabetic breast ulcer, two dehisced surgical abdominal wounds, a traumatic injury to an index finger, a surgical repair wound on a long finger and skin graft acceptor and donor sites. In all cases ALH was used in the dressings applied to the wounds; either the gel formula or the alginate formula. No other types of wound dressings were used, nor were any surgical procedures performed except for one palmar sympathectomy. All wounds were measured for length, width and depth during each visit. All wounds were assessed for tissue quality and photographs were taken at each weekly visit.

In the late presentation group (\geq 5 months and up to 12 years since initial injury) there were four patients with wounds of the following types: a left lateral ankle ulcer present for 6 years and 7 months, a left medial ankle ulcer present for 5 months related to osteomyelitis, a sacral ulcer present for months that had failed other advanced dressings including negative pressure; and a maggot infested wound related to venous insufficency that had been present for months or years. In all cases ALH gel or alginate formula was used in the dressings applied to the wounds. No other types of primary dressings were used nor were any surgical procedures performed. All wounds were measured for length, width and depth during each visit. All wounds were assessed for tissue quality and photographs taken at each weekly visit.

All wound measurements were graphed to demonstrate the wound healing trajectory for volume and surface area decrease. Some of those patients' graphs are included here as part of the representative cases.

RESULTS

All early presenting wounds closed within two to six weeks while all late presentation wounds closed within ten to sixteen weeks. Only ALH wound dressings without other topical treatments were used for both groups during the treatment period. All wounds came to complete closure or were ready for skin graft or advanced biologic to facilitate closure.

CONCLUSION

ALH dressings are a viable treatment option for both early and late presenting wounds to improve rate of wound healing and closure. Prognosis for healing is partially dependent on time of wound presentation. There are many factors involved in rates of wound healing: therefore application of ALH early in the treatment regimen is part of our good clinical practice.

References: 1. Biglari B, vd Linden PH, Simon A, Aytac S, Gerner HJ, Moghaddam A. Use of Medihoney as a non-surgical therapy for chronic pressure ulcers in patients with spinal cord injury. Spinal Cord Epub ahead of print 20 September 2011. 2. Gethin G, Cowman S. Bacteriological changes in sloughy venous leg ulcers treated with manuka honey of hydrogel: an RCT. J of Wound Care 2008; 17(6):241-247. 3. Kamaratos AV, Tzirogiannis KN, Iraklianou SA, Panoutsopoulos GI, Kanellos IE, Melidonis AI. Manuka Honey-impregnated dressings in the treatment of neuropathic diabetic foot ulcers. Int Wound J 2012.

*MEDIHONEY® Active Leptospermum Honey Dressings, Derma Sciences Inc., Princeton NJ

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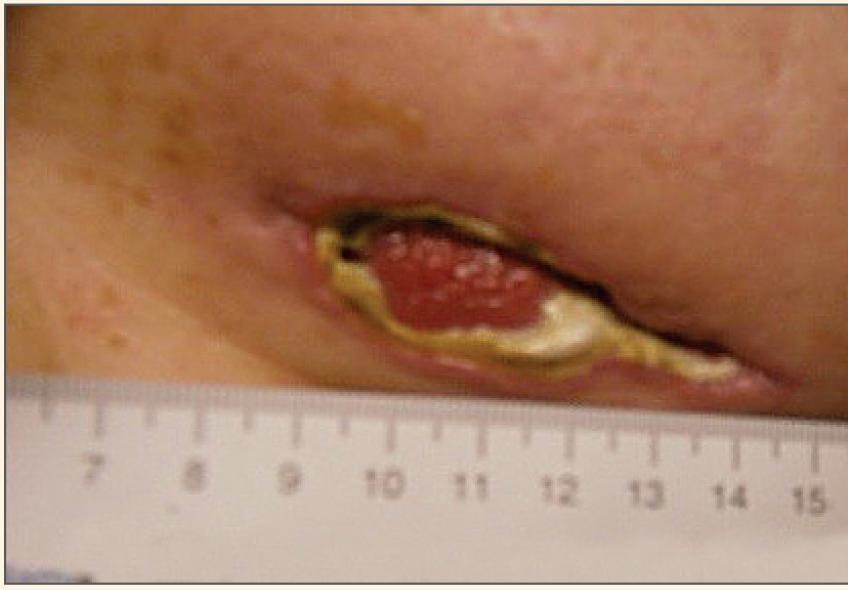
A CASE SERIES ILLUSTRATING THE EFFECT OF ACTIVE *LEPTOSPERMUM* HONEY ON EARLY VS. LATE PRESENTATION WOUNDS

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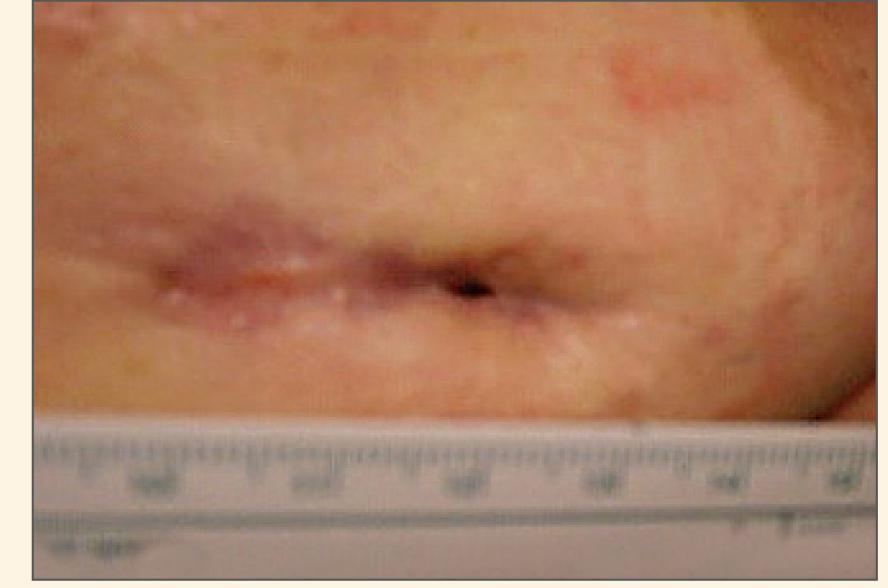
EARLY PRESENTATION CASES

CASE 1

Patient is a 42 year old female with a history of Type 1 diabetes and surgical history of c-sections. She has a history of multiple breast abscesses which drained without surgical intervention. On 9/5/14 recurrent left breast abscess required sharp surgical debridement of necrotic tissue. On 9/11/14 wound measured 7cm x 2.5cm x 17.5cm with an area of 12 cm² and volume of 210 cm³. Began treatment with ALH dressings at one week post surgery. 9/16/14 Curette debridement of wound edges was perfromed and continued use of ALH dressings. On 10/30/14 wound measured 1cm x 1cm x 2.1cm. To ensure filling this deeper tract the wound was then treated with a Cyropresevered Amniotic Suspension Allograft**.



9/11/14



10/30/14

CASE 2

Patient is a 52 year old female. She has a PMH of insomnia, bipolar disorder and anxiety. Her PSH includes GYN surgeries 1983, 1994, 2011, 2014, appendectomy, and a cholecystectomy. Presented 4 weeks post-op with a dehisced abdominal hysterectomy incision. On 3/17/14 wound measured 8cm x 4.5cm x 3.5cm with an area of 36 cm² and volume of 0.26 cm³. ALH dressings were initiated. Continued treatment with ALH until complete closure on 4/28/14.



3/24/14





CASE 3

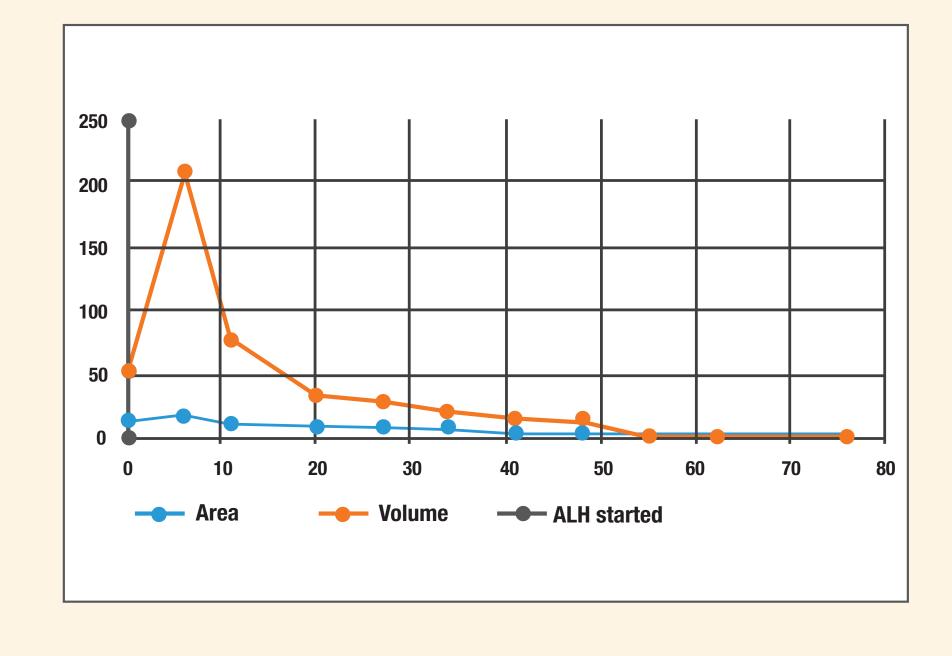
Patient is a 69 year old male, with a PMH of HTN; PSH LLE fasciotomy. Patient presented to clinic 3-4 weeks post-op with non-healing fasciotomy wounds on both medial and lateral sides of LLE. On 5/29/14 lateral wound measured 17cm x 6cm x 0.3cm with an area of 102 cm² and volume of 30.6 cm³. Treatment was started with ALH to both medial and lateral wounds; for purpose of this case we followed/graphed the lateral wound as it was larger. Complete closure on 7/10/14.

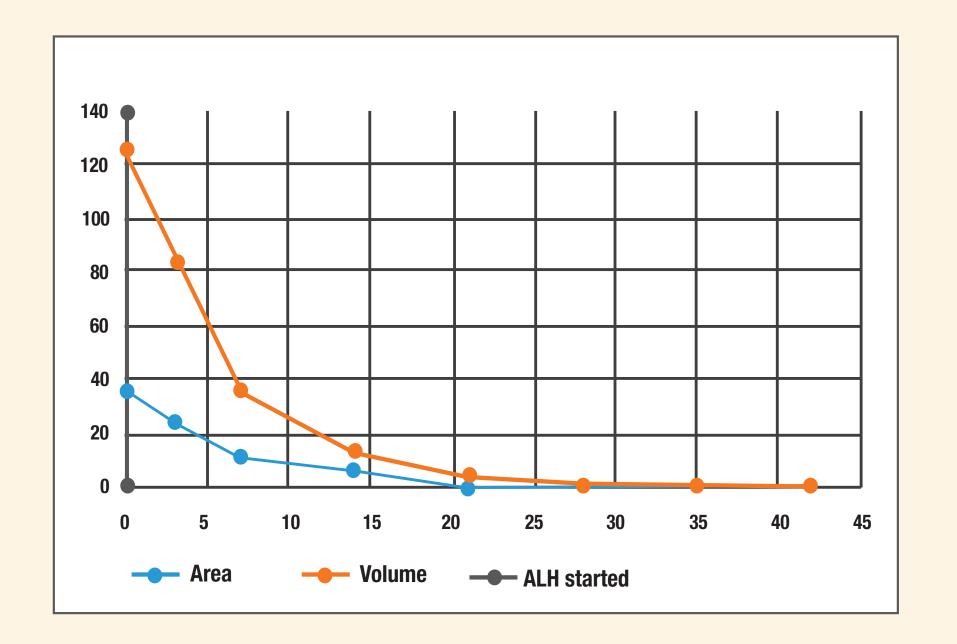


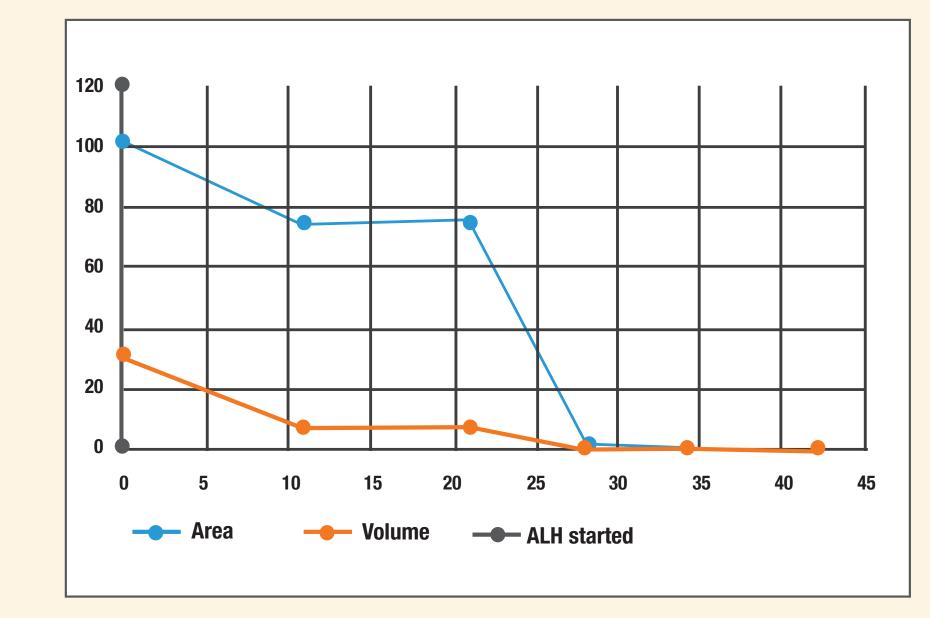


5/29/14









Patient is a 77 year old female with a past medical history of HTN, Hypothyroidism and Hyperlipidemia. Patient was treated for a tibial fracture with hardware placed and left lower leg vein striping in 2002. She developed osteomyelitis with development of a soft tissue injury and wound. Wound had been present in various states of healing for almost 11 years since her last surgery. Treatment with ALH started on 3/19/14, wound measured 2.2 cm x 1.5 cm x .3 cm and an area of 3.3 cm² and volume of 0.99 cm³. Treatment also included debridement and a 3 layer compression wrap. ALH dressings continued until complete closure on 6/26/14.



3/19/14

Patient is a 48 year old male with PMH – DM type 1; PSH left foot surgery 2007, with follow up plastic surgery to ankle, possible skin graft. Wound on left lateral ankle ulcer due to trauma. Presented to clinic with wound over 6 years of chronicity. On 7/17/14 wound measured 5cm x 3cm x 0.5cm with an area of 15 cm² and volume of 7.5 cm³. Began treatment with ALH dressings and a 3 layer compression wrap. ALH and compression wrap treatments continued with weekly clinic visits and the wound came close to complete closure on 10/27/14. Patient was lost to follow-up.



7/17/14

Patient is a 57 year old homeless male. He was admitted with cellulitis and non-medicinal maggots to his right lower leg. Patient was a very poor historian and not sure what happened, if there was trauma or how long ago the wound developed. Presented at clinic on 6/30/14 and the wound had maggots removed and treatment with ALH started along with compression for edema. On 11/6/14 wound was completely closed; treated with moisturizer and elevation.

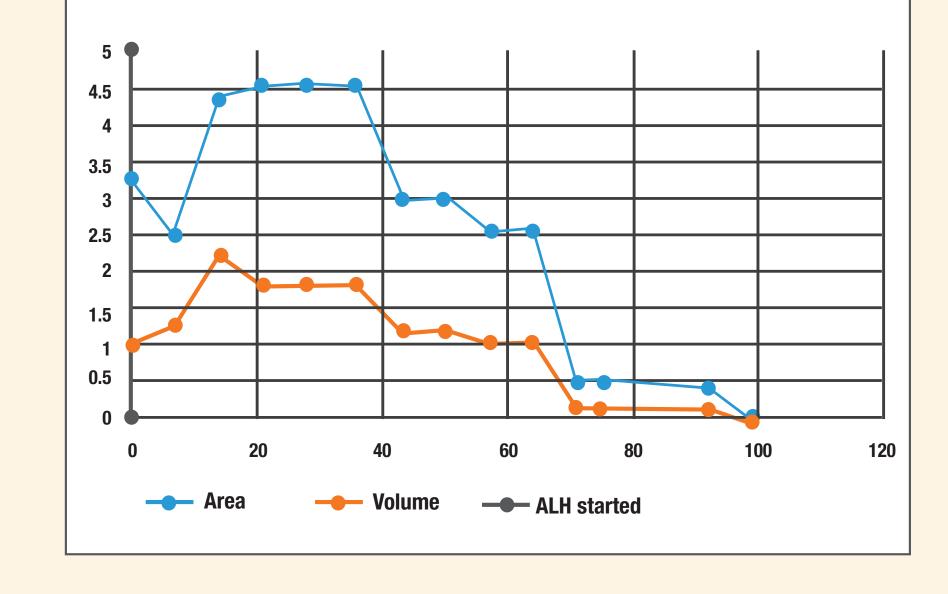


07/14/14

LATE PRESENTATION CASES

CASE 1

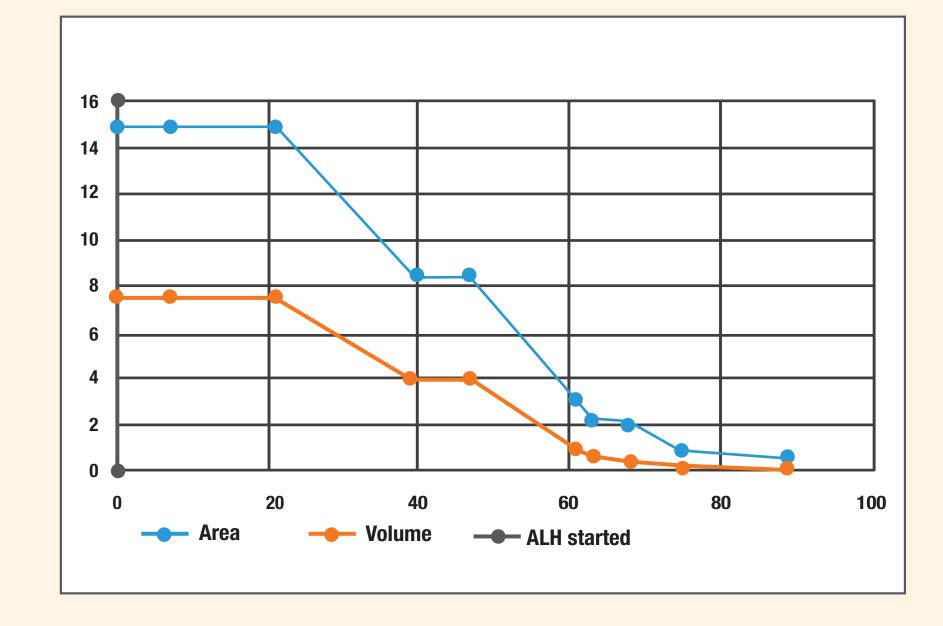




4/24/14

CASE 2





10/27/14

CASE 3



08/19/14

11/25/14