ACTIVE LEPTOSPERMUM HONEY® IN THE TREATMENT OF PARTIAL THICKNESS FACIAL BURNS - A CASE SERIES (205)

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Introduction: Recent research suggests that active leptospermum honey (ALH) gel may improve outcomes in burn patients with partial thickness burns, including enhancing the rate of healing and re-epithelialization as well as protecting against antibiotic-resistant microorganisms (Baghel, Shukla, Mathur, & Randa, 2009; Blair, Cokcetin, Harry, & Carter, 2009; Molan, 2011). Although evidence suggests that honey is an effective treatment for burn injuries, it is not known if these results would generalize to patients with facial burn injuries in the United States. Moreover, no studies have evaluated treatment costs and patient satisfaction of honey as a treatment for burn injuries. In support of future large-scale clinical trials, this study is designed to provide preliminary evidence for the efficacy of ALH gel on time to heal, bacterial growth in the wound, patient satisfaction, and treatment costs in patients with partial thickness facial burns.

Methods: Seven patients (ages 9-64 years) who sustained partial thickness facial burns were recruited from a burn care center in the eastern United States. Participants conducted daily dressing changes with ALH, followed by a photo of the wound and the paper towel used to blot test for presence of exudate. Bacterial growth was assessed via wound cultures taken on the initial visit and day 7 (+/- 2 days). Two independent physicians assigned ratings of wound healing (yes/no) to each de-identified photo, with results serving as an index for time to heal. Patients completed a satisfaction survey at the end of treatment. The specific amount of product used was recorded for determination of costs.

Results: The facial TBSA for the sample ranged from 0.25% to 2%. Participants used an average of 2.3 tubes of ALH gel during the course of treatment and had a mean treatment cost of $83.35 per % TBSA, which is substantially less than standard care. Both day 1 and day 7 wound cultures showed normal bacterial growth. The range of healing time was 3 to 14 days with a mean of 8.1 days. Finally, patients tended to rate ALH gel favorably, with the most common complaints being that it was sticky or burned when first applied.

Conclusions: Outcomes were favourable across patients. Specifically, healing time was congruent with what would have been expected for a more costly standard treatment. Further, despite no antibiotic treatment, wound culture results yielded no significant bacterial growth. Finally, patients reported being satisfied with the treatment. Taken together, our findings suggest that ALH is a viable and economical form of treatment for partial thickness facial burns. Future large-scale clinical trials are necessary to clearly establish its clinical efficacy.
Figure 1

Photos for Patient at Start of Treatment, Mid-Treatment, and End of Treatment

Patient 1

Start of Treatment (Day 1)  Mid-Treatment (Day 6)  End of Treatment (Day 14)

Figure 2

Photos for Patient at Start of Treatment, Mid-Treatment, and End of Treatment

Patient 3

Start of Treatment (Day 1)  Mid-Treatment (Day 4)  End of Treatment (Day 6)