

A CASE STUDY TO PRESENT THE CLINICAL BENEFITS OF AN ACTIVE *LEPTOSPERMUM* HONEY BARRIER CREAM

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INTRODUCTION

The skin is the largest organ in the body. It acts in the important role as a barrier and safety shield to all internal anatomical structures. When the skin becomes damaged, or fails, its barrier ability is significantly reduced¹. The skin consists of the dermis and epidermis with the epidermis also playing an important role in maintaining the acid mantle of the skin. However, under varying conditions, the skin may fail for a variety of reasons including but not limited to pressure damage, trauma, bacterial infection, fungal infiltration, burn, or complication from co-morbidities. Once the skin is damaged and the acid mantle is no longer functioning, the skin and patient are at risk for further complications².

MEDIHONEY® Barrier Cream is a sophisticated emollient containing MEDIHONEY® Antibacterial Honey, dimethicone and trimethylsiloxysilicate, which acts as a fluid barrier protecting the skin from damage in the presence of excessive fluids or moisture. The MEDIHONEY® Barrier Cream moisturises to keep skin supple and soft and helps to support the skin's natural barrier function. MEDIHONEY® Barrier Cream also has a pH of 3.5-5 which helps to maintain the optimal pH to protect against pathogens³. This case study and photo log demonstrates the results seen on a patient with multiple areas of moisture and pressure associated skin damage.

METHOD

This case study presents the progress of a 67 year old lady that presented into the accident and emergency department with multiple issues including:

- Extensive skin excoriation and pressure ulcers
- Cerebral vascular accident
- Malnutrition
- Reduced mobility
- Sepsis
- Hypoxia
- Dehydration
- Self-neglect
- Incapacitated - thought to have been on the floor for 3 days without any outside intervention

The patient was admitted via the accident and emergency department and referred to the tissue viability service. She presented with numerous areas of skin breakdown and severe excoriation. These areas included the groin area and under the breasts and armpits. Photos taken upon admission and at 3.5 weeks later are included to show initial severity and improvement. Following nursing care, improved hygiene regime and the application of the MEDIHONEY® Barrier Cream, a significant improvement was seen within the first three days. Initially MEDIHONEY® Barrier Cream was applied three times a day and with positive advancement was able to be reduced to just once a day. Upon further improvement, treatment was reduced to once every three days.

DISCUSSION

The multiple areas of excoriated and broken lesions improved rapidly following an improved hygiene regime and the use of MEDIHONEY® Barrier Cream. The speed of the improvement was quite notable. The authors realised the additional benefits with utilising the MEDIHONEY® Barrier Cream as it has antibacterial and antifungal properties. With this and many patients there was no culture available to confirm any microbes or candidas to the excoriated and broken areas⁴. The MEDIHONEY® Barrier Cream was used as a cost effective precaution with this patient prior to any microbiology results being made available.

CONCLUSION

The tissue viability service has agreed that MEDIHONEY® Barrier Cream would be a useful addition to the newly revised formulary. An increasing number of moisture lesions are being reported and this has shown to be an optimal solution to managing these areas or areas of superficial breakdown susceptible to bacterial⁵ or fungal infections.

REFERENCES

1. Machado, M. M., Hadgraft, J. J., & Lane, M. E. (2010). Assessment of the variation of skin barrier function with anatomic site, age, gender and ethnicity. *International Journal Of Cosmetic Science*, 32(6), 397-409. doi:10.1111/j.1468-2494.2010.00587.
2. Takeo M, Yuko Y, Hiromi S, et al. Aging enhances maceration-induced ultrastructural alteration of the epidermis and impairment of skin barrier function. *Journal Of Dermatological Science [serial online]*. n.d.;62:160-168. Available from: ScienceDirect, Ipswich, MA.
3. Cooper, R., Jenkins, L., Henriques, A., Duggan, R., & Burton, N. (2010). Absence of bacterial resistance to medical-grade manuka honey. *European Journal of Clinical Microbiology and Infectious Diseases*. Epub ahead of print 13 June 2010.
4. Irish, Julie, Carter, Dee A., Shokohi, Tahereh and Blair, Shona E. (2006) 'Honey has an antifungal effect against Candida species', *Medical Mycology*, 44:3, 289 — 291.
5. George, N., & Cutting, K. (2007). Antibacterial Honey (Medihoney™): in-vitro Activity Against Clinical Isolates of MRSA, VRE, and Other Multiresistant Gram-negative Organisms Including s. *Wounds*, 19(9), 231-236.

AXILLA WOUND



Initial assessment upon admission



3 days later



24 days later

INFERIOR BREAST WOUND



Initial assessment upon admission



3 days later



24 days later

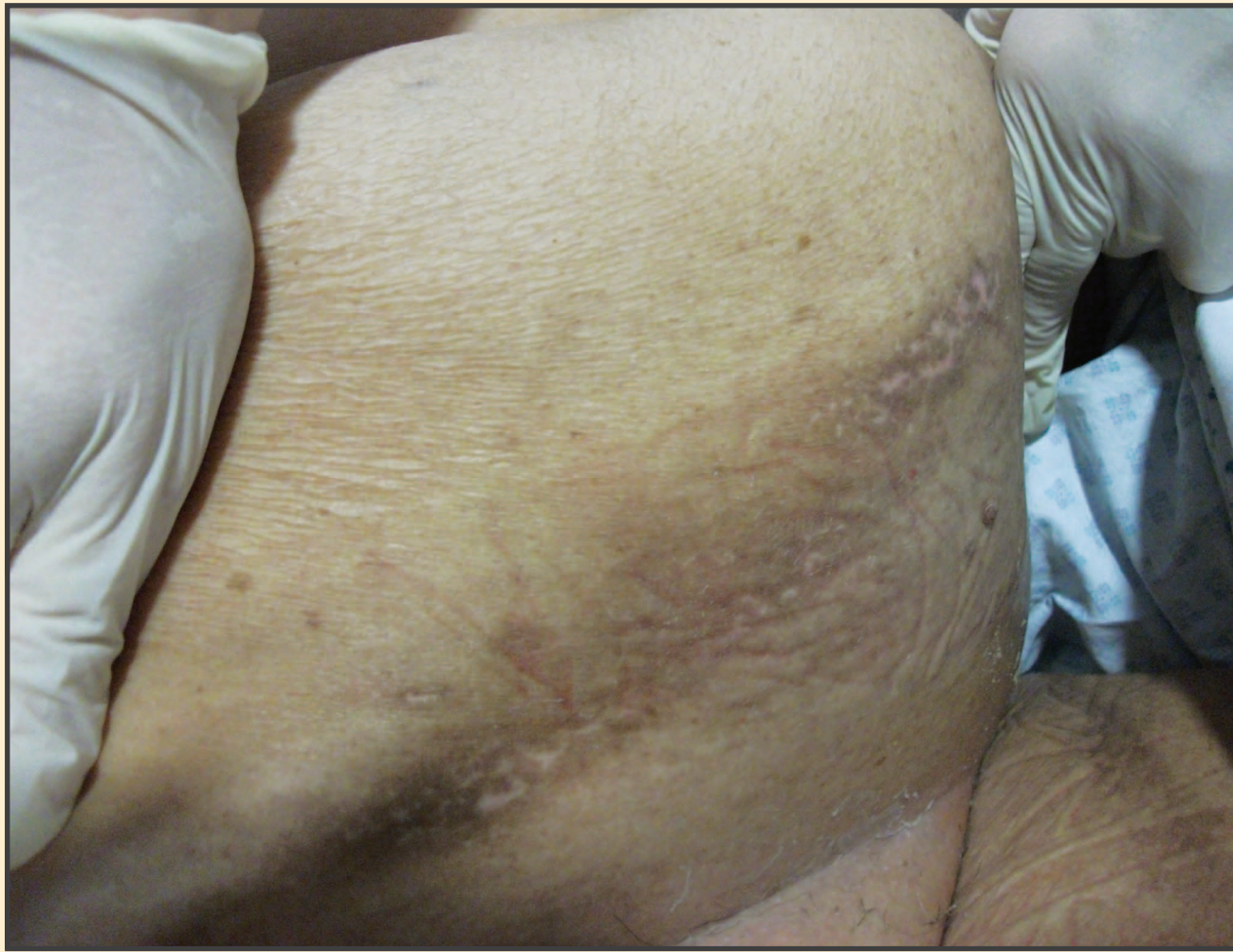
GROIN WOUND



Initial assessment upon admission



3 days later



24 days later