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HONEY IS SYNERGISTIC WITH FUZZY WALE ELASTIC COMPRESSION TO IMPROVE HEALING OF REFRACTORY VENOUS LEG ULCERS

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Problem

The cellular mechanisms by which impaired venous circulation creates inflammation that leads to venous leg ulcers (VLUs) and the mechanisms of VLU elastic compression therapy are poorly understood. ¹ In general refractory VLUs result from either ineffective elastic compression or inadequate bioburden debridement. Large superficial inflamed VLUs have intact skin nociceptive nerve endings and can be exquisitely painful. Pain is the enemy of adequate elastic compression and effective debridement. ²

Fuzzy wale elastic compression textile compresses just 20% of the skin surface, and represents a change in the compression therapy paradigm. Non compressed subcutaneous fat between wales enhances lymphatic run off. Noncompressed skin between fuzzy wales significantly improves patient comfort. ³

Recently described therapeutic mechanisms of honey therapy include, down-regulation of skin nociceptive receptor activity to minimize ulcer pain, ⁴ chemical debridement of necrotic eschar, ⁵ quenching of free radical oxygen species which cause inflammation, ^{6,7} and inhibiting biofilm bacteria growth ^{8,9}. Manuka honey* is changing the paradigm for VLU therapy.

This first human use case report asks two questions. Does Manuka honey* decrease ulcer pain during elastic compression**? Is honey synergistic with fuzzy wale elastic compression to improve refractive VLU healing?

Methods

Three refractory VLU patients, present >12 weeks, were treated with honey gel or honey alginate dressings* on top of fuzzy longitudinal wale elastic compression stockinet** as layer one of a three layer dressing.

Results

Photos document healing of all wounds. Control of pain is discussed.

Conclusion

Manuka honey appears synergistic with fuzzy elastic compression to heal refractory venous leg ulcers. Honey therapy appears to decrease ulcer pain during fuzzy wale elastic compression.

References

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* MediHoney® Manuka (*Leptospermum*) Honey, Derma Sciences, Princeton, NJ

**EdemaWear® Fuzzy Wale Elastic Compression Stockinet, Compression Dynamics LLC, Omaha, NE