



Improving healing of challenging wounds with SurgihoneyRO™ -a novel antimicrobial wound gel with antibiofilm action *in vitro*

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Introduction

The evaluations of three non-comparative case studies in this poster detail the effectiveness of SurgihoneyRO™ topical wound gel in removing barriers to healing for a variety of chronic non-healing wounds. All three wounds were treated with interactive dressings, including alginates, gels, hydro fibre' and antibiotic cream.

Due to the location of the wounds a vascular assessment was carried out to ascertain venous/arterial status prior to treatment.

Discussion

SurgihoneyRO™ unique antimicrobial and anti biofilm activity demonstrated invitro to be a more potent antimicrobial than standard medical honeys.(1) The product shows potent antimicrobial activity against a broad range of Gram-positive and Gram-negative bacteria. This is due to physical properties including pH and osmolality and antibacterial components, including hydrogen peroxide. SurgihoneyRO™ is a CE marked sterile, wound gel which differs from other medical honeys as it does not rely on a single floral source and is engineered to produce precisely controlled levels of reactive oxygen species (ROS), mainly hydrogen peroxide, boosting the body's natural ability to fight infection and promote healing. SurgihoneyRO™ has been demonstrated to be a more potent antimicrobial *in vitro* than standard medical honeys.(1) Laboratory tests show it also has superior antibiofilm action. (2). Reactive oxygen species (ROS) is a naturally occurring host defence against infection and messenger to repair cells (3). In a static or non-healing wound, production of ROS may be stalled. SurgihoneyRO™ is an exogenous source of ROS that supports the natural wound healing process.

Patient 1

The patient, a 75 year old man, presented with a chronic non healing trauma injury to left leg; revealing multiple areas of necrosis and slough. Duration of more than six months. Previous wound swabs indicated levels of bacteria that led to systemic antibiotic therapy

The Challenges

To treat colonised devitalised tissues, reduce heavy exudate and manage venous disease.

Method

Twice weekly application of SurgihoneyRO™ using a hydro fibre secondary dressing and application of a compression bandaging system.

Results

There was a reactivation of the healing process within three weeks and complete healing within twelve weeks. Compression hosiery was prescribed to reduce the risk of further tissue breakdown



Patient 2

The patient, a 77 year old man presented with a non healing full thickness skin tear on his right shin. Duration of more than two months. This case study shows SurgihoneyRO™ is effective in activating and supporting new tissue growth with complete epithelialisation of the area in seven weeks

The Challenges

Gaining the patient' s confidence to continue the treatment when other dressings failed to make a difference.

Method

Alternate day application of SurgihoneyRO™ using a hydro fibre secondary dressing. With lower leg application of tubifast to secure the dressings.

Results

Complete re epithelialisation of the skin tear in seven weeks



Patient 3

The patient, a 97 year old man with peripheral vascular disease presented with a deteriorating leg ulcer situated on the right calf. Duration of more than six months. The ulcer was covered in devitalised tissue with unacceptably high levels of exudate. Pain levels were extremely high, even with analgesia, resulting in lack of sleep..

The Challenges

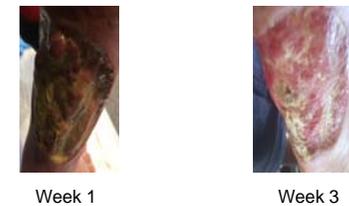
Reduced vascular supply to the lower limb. Patients dementia status which made it difficult to communicate the treatment plan.

Method

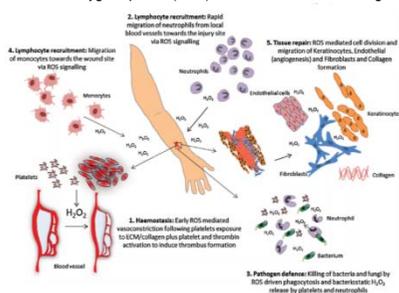
Alternate day application of SurgihoneyRO™ using a hydro fibre secondary dressing. With lower leg application of retention bandaging to secure the dressings.

Results

Within three days the patient was sleeping at night without analgesia and within three weeks the ulcer showed 80% regeneration of the granulation tissue.



Reactive oxygen species (ROS)and its role in wound healing



Dunhill et al 2015 International Wound Journal

Conclusion

All three case studies show chronic non-healing wounds respond positively to the active components in SurgihoneyRO™.as assessed through a reduction of slough, proliferation of granulation tissue, exudate management; with an improvement in inflammation and pain . The product can be used for prevention and therapy which may also reduce the requirement for antibiotic therapy.

References

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