

Background

Hard to heal wounds are a challenge for the patient, the health professional and the health care system. The recently published International Consensus Document on hard to heal wounds¹ states it is becoming generally accepted that hard to heal chronic wounds contain biofilm and that treating this could be a key factor in pushing the wound towards a healing state. There are other important factors that play a role in delayed healing including devitalised tissue, inflammation and infection.

I decided to evaluate SurgihoneyRO™ on several long standing infected chronic wounds as the product claims to be effective against multi-drug resistant bacteria and mature biofilms due to the delivery of Reactive Oxygen®, in addition the product has de-sloughing properties due to the honey carrier.

Patient 1: Chronic sternal wound - 15 year duration

A 65 year old lady was admitted with a sternal chronic wound over 15 years duration. Osteomyelitis, loss of sternal bone, COPD, tracheostomy and resistant *Staphylococcus aureus*. The wound was sloughy, painful with high exudate.

The wound had previously been managed with antimicrobials, antibacterial solutions and dressings with no success. Due to the wound location we were not aiming for wound closure however did wish to maintain an infection and slough free environment which was not possible even with sharp debridement due to the hard slough and complexities being in close proximity to the heart.

The patient was under District Nurses and Tissue Viability Team in the Acute and Community for wound management.

SurgihoneyRO™ was applied on a daily basis, following 8 days treatment the wound de-sloughed and reduced in size from 7cm x 3cm x 4cm deep to 4cm x 2cm x 1.5cm deep with reduced exacerbated pain. The wound was reviewed after 8 weeks with SurgihoneyRO™ and had remained slough and odour free with reduced exudate and pain.

Prior to application of SurgihoneyRO™



Following 8 days treatment



The wound remains infection/slough free



Patient 2: Category 4 pressure ulcer - 2 months duration

A frail elderly paraplegic lady was admitted to the hospital with a painful infected left ischial tuberosity, category 4 pressure ulcer and both scapula's with unstageable pressure ulcers. The wound swab showed *Staphylococcus aureus* and heavy mixed growth including *coliforms*.

The wounds were previously managed for 8-10 weeks with a variety of antimicrobial and antibacterial treatments, debridement was slow and the wounds remained sloughy and odourous.

SurgihoneyRO™ was chosen due to its debridement and antimicrobial properties, the antimicrobial wound gel was applied daily for 5 days. At day 5 the wound was totally de-sloughed and had started to reduce in size.

The patient was discharged to a nursing home and continued with the SurgihoneyRO™ treatment.

Wound photos of category 4 pressure ulcer progress.

Prior to application of SurgihoneyRO™



1 week later



2 weeks later



5 weeks later



Management approach

Three patients with non-healing infected chronic wounds were selected for evaluation with a new antimicrobial wound gel, a bioengineered honey SurgihoneyRO™, due to limited success with other antimicrobial products that were currently available in the Trust.

The wounds were not suitable for sharp debridement. Wound cleansing and secondary dressings remained the same throughout treatment.

Patient 3: Category 4 pressure ulcer - 4 year duration

A 59 year old lady with Diabetes Mellitus Type II, end stage Renal Disease, Hypertension, Diabetic Neuropathy, Obesity, and Stroke. The patient was bed and chair bound, she had capacity however would choose to remain in her wheelchair and sit for a long period of time resulting in no full healing. She was admitted with a category 4 sacral pressure ulcer of 4 year duration, 2cm x 2cm x 3cm deep and with thick slough to wound bed, heavy mixed growth including heavy growth of *Staphylococcus aureus*, *Candida* and heavy mixed growth including *coliforms*.

The wound had never healed despite input from the Tissue Viability Team and District Nurses in the Community, the wound had been managed previously with a variety of antimicrobials, antibacterial solutions and dressing treatments.

SurgihoneyRO™ was chosen due to results previously seen in the Trust in long standing difficult to treat wounds. SurgihoneyRO™ was applied 3 times a week for 2 weeks. Following two weeks the slough had resolved and there was reduction in wound depth. The patient was discharged and continues as an outpatient with SurgihoneyRO™ to keep the wound bed with healthy granulation and infection free.

Conclusions

The results of this evaluation on 3 non-healing patients show SurgihoneyRO™ to be fast and effective in debriding even hard viscous slough. The wounds showed improvements in slough, exudate, infection and healing over a 5-8 day period despite their duration of 2 months to 15 years.

SurgihoneyRO™ worked as promised, it provided fast debridement, infection reduction and healing where other products had failed, it is also easy to use and did not cause pain or discomfort.

An antimicrobial wound gel which is effective on biofilm, infection and slough could be cost effective to the Trust by reducing dressing changes, hospital stay and nursing time.

In addition, the patients saw an improved quality of life due to reduction in pain, odour and wound improvements. They were so happy with the results and concerned that they may not be able to continue treatment, that on discharge one of the ladies in the trial hid a tube in her handbag to ensure the treatment continued!

For chronic non-healing infected wounds with slough where you have tried other debridement products with very little success I would recommend SurgihoneyRO™.

References:

1. International Consensus Document, Implementing TIMERS: the race against hard-to-heal wounds. JWC, 2019, 28 (3)