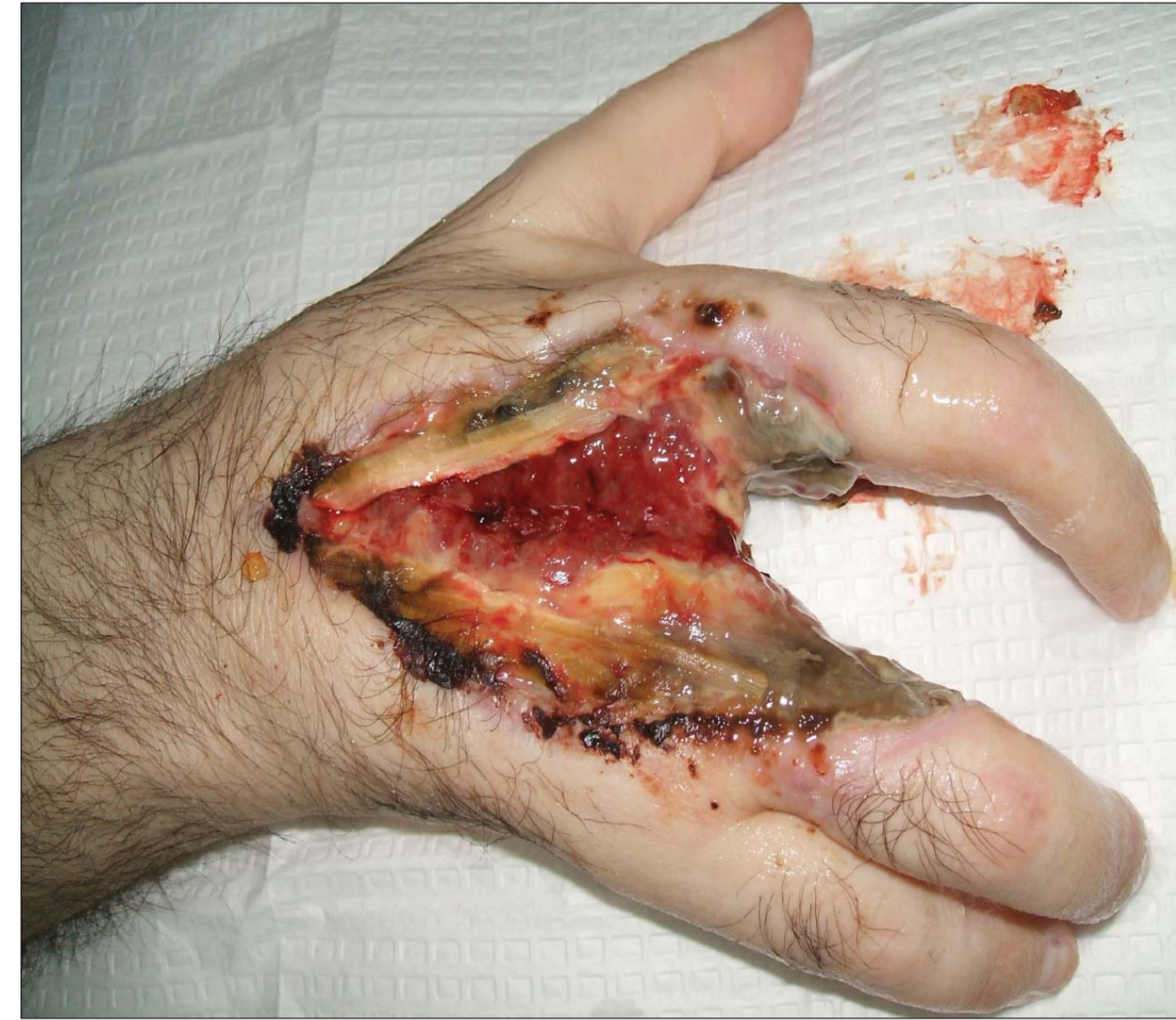


# A clinical case study of a patient with a chronic hand wound (Pyoderma Gangrenosum and micro-angiopathy) using Suprasorb® X+PHMB.

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Pre Suprasorb® X+PHMB trial  
8/03/2010 – Dorsum right hand



8/03/2010 – Plantar right hand



7 Days Post Suprasorb® X+PHMB application  
15/03/2010 – Dorsum right hand



15/03/2010 – Plantar right hand



Photographs from district nurses - no date available  
Dorsum of right hand



Plantar of right hand

## Introduction

Suprasorb® X+PHMB (polyhexamethylene biguanide) is a new dressing combining Suprasorb® X, a unique HydroBalance dressing that is able to absorb and donate moisture, with PHMB, an antiseptic compound with no known cytotoxicity or resistance (Moore and Gray, 2007). PHMB has been introduced into wound management demonstrating positive effects on wound healing (Davies and Field, 1969; Kramer et al, 2004; Daeschlein et al, 2007; Wiegand et al, 2008). Having had positive results using Suprasorb® X+PHMB on chronic leg ulcers as part of a small scale trial, it was decided to expand its use in this Trust.

## Method

This case study discusses Mr V, who sustained a traumatic injury to his right index finger leading to proximal interphalangeal joint amputation and a non-healing wound. Past history included Type 1 diabetes, renal failure requiring haemodialysis, micro-angiopathy with sub optimal blood supply to right arm due to fistula steal syndrome, neuropathy, infection and pyoderma gangrenosum to right hand necessitating steroid therapy. A multi-disciplinary approach was taken involving the plastic specialist hand surgery, dermatology and vascular teams. Advanced wound management products, including topical negative pressure, silver and honey were used in conjunction with surgical debridement, with no dramatic improvement in 7 months.

Mr V was referred to Tissue Viability prior to which ActiFormCool®, a hydrogel sheet dressing, had been used to debride the devitalised tissue. The wound measured 9.5cm x 4.5 cm to dorsal aspect and 6.5cm x 2.5cm to plantar aspect with 50% devitalised tissue, 30% poor quality granulation tissue and 20% tendon that was felt to be non viable.

Mr. V was very apprehensive about the sudden change of team monitoring and managing his wound. Being wheelchair dependent he was particularly anxious about the possibility of losing his hand, as this would be life changing in terms of his independence. It was felt that a new and innovative approach to his wound management was needed. Mr V agreed to and commenced on Suprasorb® X+PHMB following discussion.

Due to Mr V's apprehension and anxiety it was decided that one member of the Tissue Viability team would perform every wound assessment and dressing change at first. A series of photographs were taken at each dressing change to keep track of any progress made.

## Results

At the first dressing change the wound was found to be very dry with no improvement. A dressing pad and bandage had been used to hold the dressing in place for 3 days. It was decided to use a film dressing to secure the primary layer in place, in order to improve moisture levels at the wound bed. This was left in place for 3-4 days. After 7 days all devitalised tissues appeared moist and loose to dorsal aspect with a 0.5 x 0.5cm reduction in wound size to the plantar aspect. The small improvement in wound size and the positive change in wound appearance led to an increase in Mr V's confidence in the new team and, subsequently, with the new product. He began to take an active role in his treatment ensuring the dressing was kept in place and was dry and clean. Suprasorb® X+PHMB was easy to use and mould into the interweb spaces of the wound allowing a more secure fit. Mr V. felt it was conformable and comfortable. He could also still manage to use his wheelchair effectively.

Mr V was happy to be discharged with District Nurse support. Continued and significant wound improvement was reported by the District Nurses 3 weeks post discharge.

## Discussion

Suprasorb® X+PHMB has had a significant impact on the reversible physiological causes of Mr V's chronic wounds and also effectively managed wound infection without systemic antibiotics. It encouraged and allowed a reduction in wound size and actively debrided devitalised tissues. However, its impact on pyoderma gangrenosum is unclear, as concomitant treatment with steroids was used 3 months prior to application of the dressing.

## Conclusion

Suprasorb® X+PHMB is an advanced wound management product that responds well to wound infection and actively debrided devitalised tissue base in this case study.

Suprasorb® X+PHMB had a number of positive outcomes to both the patient's wound and also on his outlook. Using this new, innovative product gave a very anxious patient, fearful of losing his hand, a renewed confidence to take part in his treatment and in the clinical practitioner managing his care.

## References

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