

# A CASE REPORT ON THE USE OF PRONTOSAN® SOLUTION AND GEL ON A TRAUMATIC WOUND ON AN IMMUNO SUPPRESSED PATIENT

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## Abstract

This case study follows the progress of wound healing following a traumatic injury on the right shin of a patient causing a flap of skin to become detached.

This patient was on immuno suppressant drugs for other complex medical conditions. It is recognised that the drugs affect immune response, increase risk of infection and slow down healing.

The wound quickly became infected, biofilm formed and the wound became sloughy. It is believed that using Prontosan® Solution and Gel improved the outcome with this difficult to treat patient by removing the biofilm, helping to reduce bioburden and also significantly improving the patient's quality of life issues.

## Introduction

The patient is a 28 year old male diagnosed with Juvenile Chronic Arthritis at the age of 13. This condition is complicated by Behcets Syndrome and Ankylosing Spondylitis, Bi-lateral anterior chronic uveitis, resulting in severe deterioration of eyesight (left > right).

Long history of use of steroids (thin skin), disease modifying anti inflammatory drugs (immuno suppressants) and anti-TNF therapy since 2000 (blocks inflammatory response).

Hip replacement 1997 and knee replacement 2000.

Previous history of left leg wound (shin) in 1998 which started as a bruise, attended A & E two weeks after onset. Purulent discharge, active bleeding, patient very unwell, nauseous, hot general malaise with bi-lateral knee effusions.

Patient was admitted to ward, positive swab (staph aureus and strep pyogens group a). Immediately put on IV antibiotics for 10 days then oral antibiotics, kept on ward for three weeks. The wound took three months to heal, the whole experience was both painful and traumatic for the patient.

## Medical History

Methotrexate, Azathoprine = Immuno suppressant drugs

Infliximab = Anti -TNF therapy (infusion every 8 weeks)

Prednisilone = Steroid

Lodine = Non steroidal anti-inflammatory

Dihydrocodeine = Painkillers

All drugs affect immune response, increase risk of infection and slow down healing but are paramount in keeping the patient's medical condition under control and preventing further damage to eyes.

The patient attended A & E after causing the traumatic injury to his leg, steristrips and sterile dressing were used in an attempt to get the wound edges to meet and allow healing.

One week later the patient's leg was very painful, wound edges separated, sloughy base, medium exudate levels, surrounding erythema. The wound measured 4cm by 1cm and 4cm by 2cm at the widest point. (Picture 1)

The main aim was to keep the patient from hospital admission and to treat on an outpatient basis. It was important to reduce the patient's anxiety by creating a relaxed atmosphere and providing a confident treatment regime, given previous history of ulceration, chronicity of eyesight and general medical condition.



Picture 1 - 19/11/07

## Method

A sterile gauze was soaked in Prontosan® Solution and placed on the wound for 10 minutes. Prontosan® Gel, Mesitran ointments and Allelyvyn Adhesive dressing were used to dress the wound. This was done twice weekly, once by the clinic and once by the patient.

A wound swab was sent to microbiology which resulted in a positive result of Staph Aureus, supporting clinical signs of infection. The patient was put on oral antibiotics, DMARD therapy was reduced and anti - TNF therapy withheld in consultation with physician.

## Results

After one week of continued dressing regime, the patient experienced no pain during cleansing and dressing of the wound and was confident that the wound would improve. This was significantly helped by the patient being able to see the debris on the swab after the Prontosan® Soak (Picture 2)

Picture 3 shows slough and more pink granulation tissue was evident and the wound was showing signs of improving. The Prontosan® soak was stopped when no slough was present and granulation tissue had filled the whole bed.

18/01/08 Wound almost closed. (Picture 4)

25/01/08 Wound completely healed.(Picture 5)



Picture 2 - 26/11/07



Picture 3 - 6/12/07



Picture 4 - 18/1/08



Picture 5 - 25/1/08

## Discussion

The patient's independence, quality of life and ability to carry out routine daily activities was affected due to the painful leg. The patient was not able to shower or bathe due to the wound and the patient was anxious at his medication being reduced and withheld.

Following treatment with Prontosan® products the patient was not admitted to the ward. It empowered the patient by allowing him to share in the wound care regime and reduced visits to hospital. Painful sharp debridement was not required due to the preparation of the wound bed by the removal of slough and break down of biofilms. The cleansing of the wound was with no pain to the patient or trauma to the tissues. It also allowed a prompt return to the patient's vital medication, and an eye examination in February revealed no further deterioration in eyesight despite reducing and withholding medication.

## Conclusion

It appears likely that the Prontosan® cleansing and irrigation was helpful in reducing wound slough, biofilms and overall bioburden however, there are limitations of this case study as it lacks controls. With the previous history of this difficult to treat patient, we were delighted with the results. In particular the speed of resolution of the wound and the better quality of life for the patient especially as there was no hospital admission. The patient felt empowered and motivated and has made a full recovery with no further deterioration of his medical condition.

We believe Prontosan® Solution and Gel can play a significant role in reducing biofilm and bioburden resulting in improved outcomes for patients in a cost effective manner. Prontosan® has replaced saline as our irrigation solution of choice.