

Cleaning up an extensive burns wound with a new, active hydrogel dressing

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The patient, a 79 year old male, was admitted with sepsis, secondary to an extensive burn that he had suffered on the back of right leg 8 days previously. His symptoms also included abdominal pain and vomiting. His medical history included chronic obstructive pulmonary disease. Prior to the accident he had been living alone and was self caring.

Incident background:

The burn had occurred on Christmas day when he was opening presents in front of an open fire. His pyjama's caught fire, causing a large area of burn damage to the posterior aspect of the mid region of his right leg (distal aspect of thigh to proximal aspect of calf).

Initial treatment:

Initial wound care was carried out by the ward staff for 4 days. The wound was dressed with Jelonet, a cotton/viscose fabric sheet impregnated with white soft paraffin. The ward staff requested a formal assessment of the burn by the hospital's specialist nursing teams; the Tissue Viability Nurses and the Vascular Nurse Specialist.

Wound assessment

The 13 day old wound was assessed as a second degree burn, 34cm long and 14cm wide. The burn was extremely painful and restricted the patient's mobility. The wound bed was entirely covered by slough and necrosis with no signs of granulation, though there was evidence of epithelialisation at the wound margins. It was malodorous. The patient's medical notes indicated a previous history of MRSA infection. Swabs indicated presence of *Staphylococcus aureus*. The patient was commenced on a course of antibiotics of Flucloxacillin 500mgs TDS.

The wound was dressed with Carboflex an activated carbon dressing to manage the malodour. However after 3 dressing changes the patient found Carboflex extremely uncomfortable, saying that it "felt like cardboard" (probably because the wound was rather dry). The vascular nurse specialist reviewed the 19 day old wound and decided to switch to treatment with the Oxyzyme dressing – an advanced hydrogel dressing system with an active enzyme system **REF 1**.



Figure 1. The painful, infected 19 day old burns wound (posterior aspect of 79 year old patient's right leg).

Four 10cm x 10cm Oxyzyme dressings were used (tiled) to cover the wound. They were covered with a secondary surgical dressing pad and crepe bandage was applied to secure them in place.

Wound review at 21 days

The exudate levels remained low and the area of slough/necrosis had reduced to 80% of the wound bed. It was noted that the Oxyzyme dressing had not adhered to the wound and was easy to remove. Oxyzyme was re-applied with a carbon dressing for odour management with a surgical pad and crepe to secure.



Figure 2. The 21 day old wound.

The wound was redressed by the ward staff 2 days later. The dressing regime continued. Little change was noted in the wound status.

Two days later the 25 day old wound was reviewed by Vascular Nurse Specialist. The wound measure 32cm x 9cm and the slough had reduced to 40% with the remainder healthy granulation tissue. The wound area had reduced so only 3 dressings were required. The malodour had also significantly diminished, so a carbon dressing was not required. The ward staff dressed the wound again two days later.

The Vascular Nurse Specialist reviewed progress of the 29 day old wound two days later. The wound had continued to improve and was now 80% granulation tissue with 20% superficial slough. There was no significant change in its dimensions.



Figure 3. The 29 day old wound.

Assessment of 35 day old wound a week later, indicated that the wound had continued to progress (90% granulation tissue and 10% slough). The wound was assessed as suitable for a skin graft and the patient was transferred to a nearby hospital.

Conclusions

Urge your patients to get timely medical care (don't let them suffer in silence!). This patient endured over a week of agony before requesting medical assistance, by which time his extensive burns wound had become infected. More timely medical care would very likely have considerably reduced his suffering.

The Oxyzyme dressing produced a very positive outcome. It was comfortable, cleaned up the wound, reduced malodour and encouraged healthy granulation. After just over two weeks of Oxyzyme treatment the wound was considered ready for a skin graft.

And finally, be careful when opening your Christmas presents.

References

1. Clinical experience with a glucose oxidase-containing dressing on recalcitrant wounds (the first 100 patients in the Oxyzyme case study programme).
Prof. Paul Davis, Lisa Wood, Zoe Wood, Andrew Eaton, John Wilkins.
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