

Infected traumatic wound on the lower leg

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Introduction

79-year-old woman with Osteoporosis, CVI and Rheumatoid arthritis (incl cortisone therapy) presents a wound with infected necrosis on the left, lower leg after trauma.

The wound duration is 3 weeks. Systemic antibiotic treatment started 8 days after initial wound assessment and for a period of 12 days. The systemic antibiotic treatment was followed by removal of necrosis via debridement, local antimicrobial therapy and exudate management. Initial dressing change interval was every 2 days.

Patient



The patient, who is severely handicapped by arthritis and osteoporosis, lives in a home environment with self-care.

About 3 weeks ago, she hit a sharp wooden edge. Initially, there was only a superficial skin lesion, which was treated by the attending physician with iodine ointment and gauze. Within 8 days, the wound deteriorated and the wound showed signs of infection. Systemic antibiotic treatment was initiated.

The wound continued to deteriorate and formation of an infected black skin necrosis occurred. Surgical debridement and removal of the necrosis under local anesthesia (EMLA cream) was performed.

Local antimicrobial therapy, wound cleansing and use of Biatain Silicone Ag for exudate management and topical antimicrobial effect was initiated.

Initial wound assessment



Size of wound	Length:	50mm
	Width:	40mm
	Depth:	9mm

For tissue type and exudate, write findings.

For others, mark "x" for positive findings from assessment, and mark "0" if not present.

Wound Assessment

- Tissue type
- Exudate
- Infection

Wound Assessment

- Maceration
- Dehydration
- Undermining
- Thickened/rolled edges

Wound Assessment

- Maceration
- Excoriation
- Dry skin
- Hyperkeratosis
- Callus
- Eczema

Management goals

Mark "x" for all appropriate management goals

Wound Assessment

Management goals

- Remove non-viable tissue
- Manage exudate
- Manage bacterial burden
- Rehydrate wound bed
- Protect granulation/epithelial tissue

Wound Assessment

Management goals

- Manage exudate
- Rehydrate wound edge
- Remove non-viable tissue
- Protect granulation/epithelial tissue

Wound Assessment

Management goals

- Manage exudate
- Protect skin
- Rehydrate skin
- Remove non-viable tissue

Treatment

The patient presents with a traumatic wound on her lower leg, which developed about 3 weeks ago. During antiseptic therapy with iodine ointment, she developed a black skin necrosis. At first contact in the wound clinic the necrosis fluctuated when applying slight pressure to it and pus appeared on the sides of the necrosis.

Surgical debridement and antiseptic wound irrigation was performed. Biatain Silicone Ag was applied due to local signs of infection and pain in the wound. Antibiotics was administered orally.

The next dressing change took place 2 days later. The periwound skin was cleansed, the wound bed showed signs of sloughy tissue and necrosis. Debridement was performed using local anesthesia (EMLA cream). The result was a wound cavity of 9mm. The local antimicrobial therapy was continued.

After 12 days of treatment, Biatain Silicone Ag was replaced with Biatain Silicone due to decrease of clinical signs of infection in the wound. With medium levels of exudate, dressing change was performed every 2 days, this was the dressing change interval the next 20 days. After that, dressing change every 3 days was sufficient.

Despite cortisone therapy, slow granulation tissue developed in the wound bed. After 40 days the wound depth was reduced from 9mm to only 2mm. With only low levels of exudate, Biatain Silicone Lite was used instead.

The dressing change intervals was extended up to every 4 days.

After 131 days, during a follow-up examination, the wound was fully epithelialized. According to the nurse, the wound had already healed after 118 days.

Results

The conformability of Biatain Silicone Ag enabled close contact to the wound bed during the first few days of local treatment. No signs of maceration of the wound edge and the periwound skin. With the subsequent wound treatment with Biatain Silicone and later Biatain Silicone Lite, it was possible to manage and monitor the exudate level.

Despite the use of Cortisone, healing could take place in a manageable time frame, without complications. A skin graft was discussed but was dismissed because of the underlying disease.



Day 2



Day 40



Day 131

Reassessment of the wound at the end of case period

For tissue type and exudate, write findings.

For others, mark "x" for positive findings from assessment, and mark "0" if not present.

Wound Assessment

- Tissue type
- Exudate
- Infection

Wound Assessment

- Maceration
- Dehydration
- Undermining
- Thickened/rolled edges

Wound Assessment

- Maceration
- Excoriation
- Dry skin
- Hyperkeratosis
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Conclusion

The conformability of Biatain Silicone Ag enabled close contact to the wound bed during the first few days of local treatment. No signs of maceration of the wound edge and the periwound skin. With the subsequent wound treatment with Biatain Silicone and later Biatain Silicone Lite, it was possible to manage and monitor the exudate level.

Despite the use of Cortisone, healing could take place in a manageable time frame, without complications. A skin graft was discussed but was dismissed because of the underlying disease.

*Include reference for bacteria trapping