

Hands-on Case Reports (4/2005)

Diabetic foot gangrene – postoperative wound treatment –



Diagnoses:

- Diabetes mellitus, not primarily insulin-dependent
- Forefoot necrosis
- Renal failure
- CHD

History:

The sixty-two-year-old patient has had increasing pain with reddening and swelling of the left forefoot for several weeks. She did not visit her primary care physician until a few days before admission to hospital.

Findings on admission and treatment:

The examination reveals a moist gangrene with extensive necrosis of the great toe and sole of the left foot, moist necroses on the second and third toe, and dry necroses laterally to the fourth and fifth toe. Reddening of the skin and swelling extend from the forefoot to the ankle. On the right foot there are dry necroses on the medial great toe and on the lateral margin of the foot.

Clinical laboratory tests showed decompensated diabetes with marked signs of inflammation. Following exclusion of AOD, this can be regarded as the cause of the moist gangrene.

A wound smear was taken and the patient was initially given antibiotic therapy with cefuroxim. The highly infected forefoot was treated by open antiseptic therapy and the patient was prepared for surgery.

Transmetatarsal resection of the first and second ray was performed followed by extensive necrosectomy of the sole of the foot.

During the postoperative course, the management of this very large wound proved protracted. Nevertheless, with daily wound treatments, eight days of topical antibacterial therapy with Cutisorb® Sorbact® swabs and Cutisorb® Sorbact® absorbent pads was able to produce irritation-free, granulating and infection-free wound conditions.

During the total hospitalized period of seven weeks, the diabetes was brought under control medicinally and ongoing self-care by the patient was initiated by giving a diabetes training course.

The initial inpatient wound treatment was continued first on a post-hospitalized basis and then in cooperation with the general practitioner at our vascular surgery outpatient clinic.



Figure 1
Wound status on second postoperative day. Large and deep wound area. The wound margins are reddened, with large layers of fibrinous necrotic slough on the plantar side, and some superficial fatty tissue and muscle necroses.



Figure 2
Following extensive surgical debridement, a freshly bleeding wound without necroses is seen.



Figures 3 + 4

A Cutisorb® Sorbact® ribbon gauze was placed in the wound, followed by coverage with a Cutisorb® Sorbact® absorbent pad fixed with an elastic gauze bandage. This dressing was left in place for 24 hours. The next dressing change was then required because of the heavy secretion.



Figures 5 + 6

On the eighth postoperative day we observed necrosis-free, granulating wound conditions. The reddening in the periwound area was decreasing. No wound odour was detectable any longer. Because of the heavy exudation and very frequent dressing change (between 12 and 24 hours), wound dressings with Cutisorb® Sorbact® were continued up to postoperative day 18. Figure 6: Wound contraction and further granulation now on the 26th day of treatment. Since the 18th postoperative day treated with hydroactive dressings.



Figure 7
On day 45 of treatment, the wound diameter was only 4 x 4 cm. The skin macerations on the sole on the foot that repeatedly occurred during wound management were managed by switching between moist, hydroactive dressings and Cutisorb® Sorbact® absorbent pad.



Figure 8
Further healing progress on day 57 of treatment. The patient can partially load her foot.



Figure 9
With a wound size of 3 x 1.5 cm on day 73 of treatment, the patient was discharged to a course of rehabilitative treatment.

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