L-Mesitran®

Case study: C120

Diabetic foot, wet gangrene, *P. Mirabilis*

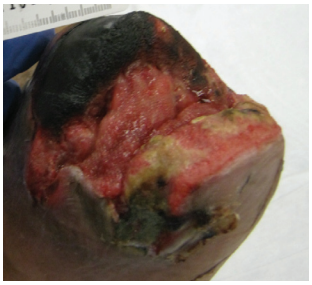
An 87 year old female, type 2 diabetic (DM2), suffered from an open wound on her left foot due to a transmetatarsal amputation. The DM2 was diagnosed in 1986 and she uses metmorfin 500mg to control the DM2. She also has hypertension for which she uses amlodipine and valsartan (Exforge 5/160) 1x/dy.

The patient was treated as an out patient at first with dry dressings, ActiVac© (KCl) and hyperbaric oxygen. This seemed effective, however wound healing was slow and culture swabs showed that the wound was infected with ***Proteus mirabilis***. ***Proteus mirabilis*** is a very commonly recovered organism, especially from urinary and wound infections; it accounts for 90% of all infections caused by the ***Proteus*** species (Auwaerter, 2008).

After 10 days with little progress the physician decided to change therapy to a honey based approach. The success of honey on diabetic wounds is well described in literature (Moghazy, 2010; Candeias, 2011) and is characterized by antibacterial activity, even against antibiotic resistant bacteriae (Kegels, 2011).

1. 07/03/2011

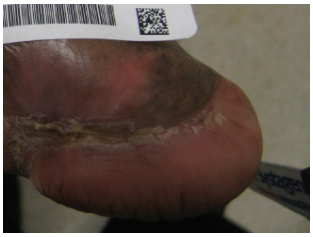
2. 07/03/2011



3. 16/03/2011

4. 14/04/2011

5. 07/07/2011



6. 01/09/2011

Product: L-Mesitran Soft.

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Methods

The gel was applied daily and then covered with a regular absorbing dressing. After 4 weeks a collagen graft was done (Iorio, 2011) (fig. 4). Thereafter also a freeze dried collagen product was used (Prisma, J&J).

Results

At first review the wound measured 5.1x8.5x2.2cm and showed necrotic and sloughy tissue (fig. 1, 2). After 9 days in the treatment the wound has debrided for more than 50% (fig. 3) and the bacterial infection has subsided.

Four weeks in the treatment the wound is fully debrided and the collagen graft was applied (fig. 4). The gel was used regularly in addition and four months after the start of the treatment the wound is 2/3 closed (fig. 5). The wound progressed to full healing without adverse events and upon follow up 6 months after the start of the treatment, the wound was closed (fig. 6).

Discussion

Candeias (Candeias, 2011) cites the following qualities of treatment of DM2 ulcerations with the same honey based products as used in this case: honey-based products can play a vital role in the management of DM2 foot ulcers, their use does not influence glycaemic levels, they can prevent amputation and they promote patient compliance. We can corroberate the findings of Candeias as shown by the above explained wound healing process. In this case the wet gangrene posed a particluar challenge as it is a serious limb- or life-threatening infection (Bahebeck, 2010). The debriding qualities and antibacterial efficacy were well demonstrated by the honey gel; it prevented further amputation. The open left foot wound healed completely, without adverse effects in 6 months time.

Declaration

This case study was done independently and with signed patient consent.

References

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