The use of Manuka honey dressing on the treatment of ulcerations caused by Necrobiosis Lipoidica Diabeticum

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The dressing

Actilite® is a non-adherent viscose dressing impregnated with Advancis Manuka honey. It is an effective anti-bacterial for preventing and reducing bacterial colonisation and maintains a moist wound environment. Actilite® is a combination of Advancis pure Medical Grade Manuka honey and Manuka oil.

It is indicated for use on all wound types such as superficial, partial or full thickness wounds, e.g. cuts, pressure ulcers, surgical wounds and burns.

Actilite® should be placed directly onto the wound bed and covered with a secondary dressing, depending on exudate levels and the state of the wound bed and can be left in place for up to 7 days. Colour change within the dressing is an indication that the dressing requires changing, as well as the possible appearance of strike through on the secondary dressing. The amount of wound exudate affects the efficiency of Actilite®.

The dressing should not be used if the patient is allergic to bee stings, bee products or essential oils, e.g. tea tree oil.

Necrobiosis Lipoidica Diabeticum

This is a rare inflammatory skin disorder characterised by irregularly shaped, callous lesions with reddish-brown pigmentation and central atrophy. It is associated with neuropathy in 75% of all cases but lesions can become painful if trauma occurs to the affected area resulting in ulceration. No treatment of the condition is completely effective; however trauma to affected areas should try to be avoided at all costs.

www.patient.co.uk/necrobiosislipodicadiabeticum (2008)

Presenting problem

53 year old male, type 1 diabetic – poorly controlled.

The patient had a history of Necrobiosis Lipoidica Diabeticum (Necrobiosis) and ulcerations over the dorsum of the left foot. At this time the trauma had been caused by the patient kneeling down with his feet underneath him, causing the dorsum of the feet to become weight bearing. The patient has complete sensory neuropathy to both feet but only the left foot was affected by Necrobiosis. The ulcerations had previously been treated with a film dressing containing Manuka honey, but this was not controlling exudate levels and was macerating the surrounding tissue, causing excessive slough to accumulate over the wound bed.

Week 1: The patient presented with two ulcerations to the dorsum of the left foot. The ulcer proximal to the hallux was circular in shape, measuring approximately 1cm in diameter. It had a thick sloughy plug blocking the wound base and had a punched out appearance. The second ulcer on the dorsum of the foot, proximal to the 3rd, 4th and 5th toes also had a punched out appearance and contained thick slough, but with granulation tissue present. It had a depth of 2-3mm and measured 3.5cm by 4.8cm at its widest and longest. The area was cleansed with saline and dressed with Actilite® and an absorbent foam secondary dressing. The dressing was changed once before the next clinic appointment. The patient had orthopaedic footwear with cushioning over the dorsum of the left foot. The patient was asked to monitor his blood sugar control and to note any changes whilst using the honey dressings.

Week 2: On presentation the larger ulcer appeared cleaner; with the majority of the slough removed. The smaller ulcer still contained a sloughy plug. All surrounding tissues were not macerated and the area of Necrobiosis appeared less inflamed in appearance. The ulcers were cleansed with saline and dressed with Actilite® and an absorbent foam dressing. The Manuka honey had helped to remove the slough and the foam dressing had controlled the exudate from the ulcers. Again the dressing was changed once before the next clinic appointment. No change had occurred in the patient's diabetes control.

Week 3: The sloughy plug in the smaller ulcer had been removed and the larger ulcer contained less slough and looked pink and healthy with increasing granulation tissue. The ulcers appeared shallower and less punched out in appearance. The ulcers were again cleansed and dressed as week 1 and 2. The patient was informed to try and not fasten the shoes too tight, so as to reduce trauma to the area. The patient fastened the shoes tight due to neuropathy and not being able to feel the shoe around the foot. No change had occurred in the patient's diabetes control.

Week 4: Both ulcers appeared pinker and healthier in colour with more granulation tissue present and minimal slough, they also appeared shallower, especially the larger ulcer. Again no change was recorded in the diabetes control.

Discussion

The foot continued to be dressed with Actilite® and an absorbent foam dressing and both ulcerations healed. The patient's orthopaedic footwear has been reviewed and the patient has continued access to both routine podiatry and the multidisciplinary diabetes foot team when required.

Various other treatments had been used prior to Actilite® but this was found, in conjunction with a secondary absorbent foam dressing, to control exudate levels, help to remove slough on the wound bed and prevent bacterial infection and to provide and maintain a moist wound healing environment, all without affecting the diabetes control of the patient.


Week one


Week two


Week three


Week four

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