Managing eczema in patients with leg ulcers

Author:
Deborah Hofman

Patients with leg ulcers will also often experience skin problems such as eczema. It is important that clinicians are able to offer comprehensive skin assessment, accurate diagnosis and effective management. This article outlines the background to the development of eczema in the lower limb and offers useful practice points for clinicians.

Further reading

Skin Care in Wound Management: Assessment, Prevention and Treatment

Useful links

Alliance Pharmaceuticals
Genus Pharmaceuticals
Hartmann
Read the text-based version of this article

INTRODUCTION

Care of the surrounding skin is often the most problematic aspect of leg ulcer management and can cause the patient greater discomfort than pain from the wound *[Fig 1]*.

Inappropriate skin treatment and dressings can exacerbate skin problems and lead to increased discomfort. Clinicians who manage patients with leg ulcers need to develop expertise in assessing the surrounding skin and be able to recognise when a dermatology referral is necessary.

Leg ulceration is often preceded by skin changes such as oedema, lipodermatosclerosis, discolouration, atrophie blanche, cellulitis and eczema. Prompt intervention can prevent ulcers occurring. These conditions are also frequently present alongside leg ulceration. Recognising these conditions and knowing how to manage them effectively is crucial.

This short report focuses on the management of eczema in patients with an existing leg ulcer and how to distinguish eczema from cellulitis.

ECZEMA

Eczema is inflammation of the epidermis and is characterised by itchy, reddened, dry and cracked skin and may range in severity from mild to severe.

Venous eczema or contact eczema

Eczema of the skin surrounding a leg ulcer may be caused by venous stasis or by contact sensitivity to a product applied to or in contact with the skin (for example, latex, preservatives and adhesives). Patients with venous leg ulcers show a greater tendency towards allergy than the general population[1] and it is important to identify potential allergens by patch testing when contact sensitivity is suspected. Patients may also develop an irritant response to products next to the skin, often through wound exudate, which is not absorbed away from the skin by dressings.

Venous eczema may precede ulceration and early identification of skin changes and prompt treatment may prevent ulceration occurring or deterioration of an existing ulcer. Patients who have eczema on the leg should be asked if they have eczema elsewhere on the body.

Eczema or cellulitis

Confusion in the differential diagnosis of leg eczema and cellulitis frequently occurs in clinical practice (most often with acute eczema being diagnosed as cellulitis rather than *vice versa*), as patients with both conditions may present with red, hot, swollen and painful legs. It is important that clinicians are able to distinguish between the conditions as inappropriate antibiotic therapy is undesirable and withholding topical steroid treatment results in worsening of the skin condition.

The following is a guide to the differences in the presentation of eczema and cellulitis:

- **Both conditions are painful but cellulitis can be identified by increasing pain to**

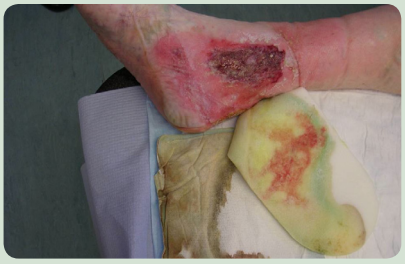

Figure 1 – The skin surrounding a wound often causes more problems than the wound itself – in this example eczema has developed as a result of prolonged contact with wound fluid.

References

1. Saap L, Fahim S, Arsenault E, et al. Contact sensitivity in patients with leg ulcerations: A North American study. *Arch Dermatol* 2004; 140(10): 1241-6.

touch and pressure, whereas eczema will usually be described as 'sore'
- The spread of the reddened skin in eczema will be patchy, whereas the redness in cellulitis is normally more demarcated
- Cellulitis may be accompanied by fever and malaise
- In cellulitis, the skin will present as smooth, whereas in eczema it is scaly
- Cellulitis is not normally itchy, whereas typically eczema will result in irritation
- Large areas of blistering may occur with cellulitis whereas smaller vesicles may occur with eczema
- Cellulitis is normally unilateral whereas eczema can occur in both limbs.

The clinical picture may be confused with patients suffering from cellulitis and eczema concurrently, or infected eczema. In patients with lymphoedema and cellulitis the spread of infection is not clearly demarked.

MANAGEMENT OF ECZEMA

Where contact sensitivity is suspected all potentials allergens should be avoided in the management of the patient's skin, eg creams, adhesives.

The topical management of eczema in the lower limb is the same, whether the cause is venous, due to a contact allergy, or a combination of the two. Practice points include:

- **Latex gloves should never be worn when treating patients with leg ulceration or eczema of the lower limb to prevent sensitisation by rubber chemicals**
- **Treatment of eczema will be determined by whether the eczema is wet – common in oedematous lower limbs – or dry.**

Managing wet eczema

Where a patient has wet eczema on the skin surrounding a leg ulcer, the following management regime should be applied:

- **Leg(s) should be washed or showered with water. Potassium permanganate soaks may also be helpful in a weak dilution (the solution should be pale pink) and care should be taken that there are no un-dissolved crystals which can cause burns**
- **It is impossible to apply ointments directly onto wet skin. Topical steroid ointment should be spread (like butter) onto non-adherent dressings, eg Atrauman® (Hartmann) which should then be applied to the eczema**
- **Initially, an ample amount of topical steroid should be applied to the affected areas. Guidelines suggest three fingertip units (FTUs) for any eczema on the lower limb[2], but it is more effective to apply more topical steroid and reduce it as the condition improves (when applying topical steroids on dressings with a spatula, considerably more than three FTUs will be needed)[3]**
- **Ointments should be used in preference to creams as they have fewer sensitising components**
- **Cotton tubular bandaging toe to knee padding and compression bandaging as indicated by vascular assessment should be applied.**

Managing dry eczema

In the case of dry eczema, the following regime should be instituted:

- **The legs should be washed using a soap substitute, eg Hydromol® (Alliance Pharmaceuticals), Cetraban® (Genus Pharmaceuticals)**
- **The limb should then be dried**
- **More emollient (eg white soft paraffin and liquid paraffin (50/50) or Hydromol) should be applied and allowed to soak into the skin**
- **Topical steroid ointment should be applied to the affected area (at least three FTUs for the whole of the lower limb).**

To treat severe wet or dry eczema effectively, the highest strength of steroid should be applied at the outset. Because rapid improvements will be seen using this regime, the dose can be quickly reduced and the treatment time kept to a minimum – this will mean that the overall dose of steroid is reduced.

CONCLUSION

Patients with leg ulcers are particularly prone to developing skin problems such as eczema. Comprehensive skin assessment, accurate diagnosis and effective management are crucial if clinicians are to ensure optimum healing of the lower limb ulcer and any associated skin conditions. The involvement of dermatology specialists may be helpful in order to reach an accurate diagnosis and gain advice on appropriate treatment.

AUTHOR DETAILS:

Deborah Hofman, Clinical Nurse Specialist in Wound Care, Churchill Hospital, Oxford

Page points

1. *The topical management of eczema in the lower limb is identical, whether the cause is venous, due to a contact allergy, or both*
2. *Latex gloves should not be worn when treating leg ulcer patients with leg ulceration or eczema to prevent sensitisation*
3. *Treatment of eczema will be determined by whether the patient's eczema is wet or dry*

References

2. Long C, Finlay A. The finger-tip unit-a new practical measure. *Clin Exp Dermatol* 1991; 16(6): 444–7.
3. Hofman D. Skin conditions associated with leg ulceration. In: Cherry DW, Hughes MA (Eds) *The Second Oxford European Wound Healing Course Handbook*. Positif Press, Oxford; 2010: 114–19.