What lies beneath? Assessment of leg ulcers during acute hospital admission

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Abstract

Chronic leg ulceration is a common condition often noted in patients during an acute hospital admission. We present the case of a patient in whom thorough examination and investigation of an incidentally noted ulcer revealed a serious, previously unexpected diagnosis of disseminated Merkel cell carcinoma. This article illustrates how important it is that medical staff are aware of the different patterns of an ulcer disease and are alert to atypical appearances. Acute admission, regardless of cause, represents an opportunity for full examination of all ulcers with a view to further investigation or specialist referral if needed. Such assessment can support the often overburdened community services and ensure appropriate investigation and treatment, particularly in the context of detecting malignancy.

Keywords: chronic, ulcer, malignancy, Merkel cell, elderly

Introduction

Leg ulceration represents a significant disease burden in the United Kingdom affecting 1% of the adult population [1]. Consequently, a significant proportion of acute-stage medical admissions, particularly of the elderly, will have chronic ulcers of various aetiologies. We present a patient where investigation of a longstanding ulcer revealed a previously unexpected diagnosis, and we discuss the role of hospital physicians in ulcer assessment and management.

Case report

An 86-year-old woman presented for acute medical admission with cellulitis complicating a chronic leg ulcer on the posterior aspect of her left calf. The leg was red, swollen and tender, and a 3 cm ulcer was noted. The lesion was atypical in appearance, hard, grey with a raised centre and oval in shape.

Intravenous antibiotics were commenced and a Doppler ultrasound excluded underlying venous thrombosis but revealed an enlarged lymph node in the left groin.

Closer questioning revealed that the ulcer had been present for at least 2 months and had been dressed by the district nurses with non-compression bandages. She had not undergone any specialist investigations, but had had several episodes of associated cellulitis.

Inpatient dermatology referral and biopsy revealed a Merkel cell carcinoma. Staging CT showed extensive lymphadenopathy and extension into the mesentery. Surgical intervention was not possible and she received palliative radiotherapy followed by symptomatic treatment and input from the Macmillan team. She had several further admissions with cellulitis and general deterioration and required placement in a nursing home. She died 8 months after diagnosis from carcinomatosis.

Discussion

The majority of ulcers are vascular in origin, however, approximately 20% are of ‘mixed’ aetiology including neuropathic, rheumatoid vasculitis or malignancy [2]. Merkel cell tumours are amongst the rarest causes of malignant ulceration. They are aggressive neuroendocrine tumours with an overall mortality of 30–50%. If detected early, radical surgical resection is the treatment of choice since they are poorly responsive to chemo- and radiotherapy, but recurrence is common [3].
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Table 1. Criteria for consideration of specialist referral [8, 9]

Criteria for considering specialist referral

- Ulcers of non-venous origin (rheumatoid-, diabetes- arterial-, mixed aetiology ulcers)
- Suspected malignancy
- Diagnostic uncertainty
- Atypical distribution
- Reduced ABPI (<0.8 routine vascular referral, <0.5 urgent vascular referral)
- Increased ABPI (>1.0)
- Rapid deterioration of ulcer
- Newly diagnosed diabetes mellitus
- Signs of dermatitis
- Cellulitis
- Healed ulcers (with a view to venous surgery)
- Ulcers which have received adequate treatment, and have not improved after 3 months
- Recurring ulceration
- Ischaemic foot
- Infected foot
- Difficulties with pain management

It is doubtful that our patient would have tolerated surgery if diagnosed earlier, however, her case illustrates the importance of awareness regarding atypical appearances of ulcers which warrant early biopsy and review.

Management of ulcers takes place mainly in the community and is generally nurse-led. There is no national consensus on what adequate training for this role should involve, and wide variation exists in different areas [4]. Despite calls for better training [5], initial assessment of ulcers is often incomplete [6] and awareness of referral criteria and access to specialist services are highly variable [7].

A significant proportion of patients admitted to hospital, particularly the elderly, are noted to have chronic leg ulcers. Difficulty or pain in removing dressings, inability to redress wounds, lack of confidence/specific training or time pressures may contribute to reluctance amongst medical staff to expose and assess ulcers which may be felt to be incidental to presentation.

Current recommendations from the Royal College of Nursing and the Scottish Intercollegiate Guidelines Network advise that all patients with ulcers have a full risk assessment [8, 9]. If there is lack of response or deterioration after 12 weeks of active treatment, biopsy/specialist referral is recommended, however, this can be sought immediately in cases like ours, described above, where ulcers have an atypical or alarming appearance. Criteria for referral are shown in Table 1.

Acute admission, regardless of cause, represents an opportunity for assessment and review of a chronic ulceration to confirm that diagnosis and management are proceeding correctly. Malignant ulcers are rare, but potentially treatable and should not be overlooked. Physicians should be suspicious of atypical ulcers and familiar with local services to ensure appropriate follow-up as part of the integrated team approach needed for ulcer management.

Key points

- Hospital physicians should be aware of the differential diagnosis of types of ulcers and normal and abnormal patterns of healing.
- During a hospital admission all ulcers should be fully evaluated including assessment of risk factors and history of treatment.
- Physicians should be aware of local services and pathways of referral.

Conflicts of interest

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References


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