The patient in the following case report was cared for at the diabetic foot clinic in the wound care unit at the Mubarak Al-Kabeer Hospital, Kuwait. It is run by a permanent wound care specialist surgeon, five nurses and a podiatrist. It is linked to the vascular team by members of the multidisciplinary team, including a diabetologist, a nutritionist and a general surgeon. Approximately 1,400 diabetic foot ulcers are seen at the unit each month. Surgical debridement is carried out by the doctor and then nurses are responsible for dressing wounds and ensuring that wound management is both efficient and clinically effective.

Case report
A 68-year-old obese woman (body mass index [BMI] 32) who also had type 1 diabetes, hyperlipidaemia hypertension and ischaemic heart disease presented with a non-painful ulcer on the lateral malleolus on her right foot which had been present for one month. At the time of presentation, the ulcer was classified as University of Texas stage-A/grade 1 (no infection or ischaemia, superficial wound based on clinical examination. It measured 2.5 x 2.6cm. The wound was dressed initially with a silver-containing dressing twice weekly after deep wound swab culture was obtained which was negative for any organism. After the first week the dressing was changed to a collagen and oxidised regenerated cellulose (ORC) dressing impregnated in saline and covered with a low adherent secondary dressing to will conserve moisture and maintain a moist wound healing environment. After 64 days there were no signs of change in the wound condition regarding size, shape, exudate, colour or pain. A wedge tissue biopsy was taken as part of routine examination in a non-healing wound. A non-specific squamous cell carcinoma with a free margin was identified and completely excised; the patient was free from palpable lymphnodes or any other skin ulcerations. The wound was treated with various dressings such as silver and ORC and the wound completely healed one month later with no recurrence noticed for 8 months after excision.

Discussion
Chronic wounds can be defined as wounds that have failed to progress through the normal healing process and have entered a state of pathological inflammation. Any venous ulcer present for more than three months, which is unresponsive to therapy should undergo biopsy to rule out malignancy.

Cancers that develop in chronic wounds or scars are usually squamous cell carcinomas but they may be basal cell or melanoma. There have been few reports of squamous cell carcinomas (SCCs) arising from necrobiosis lipodica but none of malignant melanoma. The two most common ulcerating tumours of the skin are basal cell carcinoma and SCC, which may be found anywhere on the sun-exposed areas of the skin. There are many...
other possible ulcerating tumours of the skin [Box 1]. Tumours may be initially mistaken for skin ulceration. SCC and sometimes fibrosarcoma can also be found in chronic leg ulcers of longer duration, probably as a consequence of the increased cell division in and around the ulcer which leads to malignant mutation [2].

As in this case report, the tumour typically appears as a papule or nodule and ulceration that arises on the sun-exposed skin of older patients [Figure 1]. It has been linked to immunosuppression that can occur with diabetes and chronic ulceration.

Cutaneous SCC is usually easy to treat and it has the potential to recur locally and even metastasise which can lead to significant morbidity and mortality. Therefore investigating and grading the tumour is essential and aggressive tumours must be followed by lymphadenectomy or radiation. Prognostic factors in SCC include tumour size, depth of invasion, histological differentiation, location, perineural invasion, rapid growth, history of previous treatment and host immunosuppression [Box 2].

There are several subtypes of SCC including keratoacanthoma, acantholytic, spindle cell, verrucous, clear cell, papillary, signet ring, pigmented, and desmoplastic SCC. These variants of SCC should be reviewed for their clinical and histological features and the risk of recurrence and metastasis. The type of SCC found will be a factor in determining the prognosis.

Ulcer features that are suggestive of malignant transformation include a chronic ulcer of more than three months duration not responding to local wound treatment. It may appear pale and have excessive granulation tissue beyond the margins. Everted wound edges should prompt a high level of suspicion that the ulcer might be malignant. Recurrent breakdown of ulcers after healing and after appropriate treatment, change in drainage, continued unresponsiveness to therapy, lymphadenopathy and ulcers that increase in size or bleed inappropriately require further investigation.

**Conclusion**

Wound care professionals should be vigilant to the presence of malignancy in chronic non-healing wounds. Appropriate investigations should be made for wounds that do not respond after three months of treatment so that any malignancies can be promptly treated to avoid any further complications and morbidity.

**References**