

# An ulcer of the foot

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## CASE REPORT

A 58-year-old woman sought medical attention for a non-healing and slow-growing lesion present for approximately seven months on her left foot sole. Her medical history was remarkable for diabetes mellitus that had been poorly controlled during the past 11 years. The patient specifically denied prior trauma or radiation to the affected area. The patient had been seen several times by a primary care physician and received topical antibiotic treatment for the presumptive diagnosis of mal perforans from a diabetic neuropathy.

When examined, a 4 x 1.5 cm slightly hyperpigmented nodule was found with a central ulceration located on the distal portion of the left foot sole. An incisional biopsy was obtained which included a focus of dark pigmentation (*figure 1*).

## WHAT IS YOUR DIAGNOSIS?

See page 337 for the answer to this photo quiz.

Figure 1. Ulcer of the left foot



## DIAGNOSIS

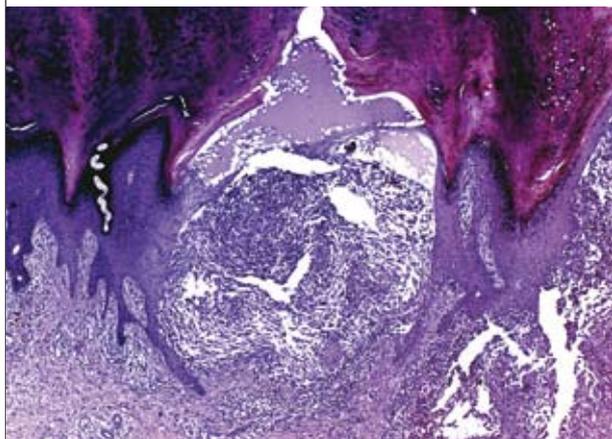
Histological examination showed tumoral melanocytic cell nests filling and expanding the papillary dermis with atypical mitosis and melanoma cells infiltrating up through the epidermis. Ulceration was present (*figure 2*). On the basis of the clinical and histological findings, a diagnosis of acral lentiginous melanoma (ALM) was made. The patient was sent to the Plastic Surgery Department for complete excision. Histopathological examinations confirmed the ALM diagnosis. Tumour thickness was estimated to be 5.25 mm and there was invasion into the reticular dermis (Clark's level IV). Sentinel lymph node biopsy was negative. Radiological evaluations and analytical studies revealed neither bony involvement nor metastatic disease. After an 18-month follow up, no evidence of extracutaneous illness was found.

ALM constitutes a small proportion of all melanomas found in fair-skinned persons, although this type of malignant melanocytic neoplasm comprises the majority of melanomas among those who have darker skin tone.<sup>1</sup> Acral lentiginous melanoma can be seen on the digits, palmar or plantar sites. The plantar region is the most frequently seen site on the foot, with the dorsum of the foot, subungual

region and digits less commonly involved. Because of its unusual sites and atypical clinical morphologies, ALM is frequently misdiagnosed and may receive prolonged courses of inadequate therapy.<sup>2,3</sup> Delay in the diagnosis of acral melanoma is greater and misdiagnosis is more frequent than with other subtypes. A study on the delay in diagnosis of ALM revealed that 17 (52%) of 33 subungual melanomas and 10 (20%) of 50 palmoplantar melanomas had been clinically misdiagnosed by physicians.<sup>3</sup> According to this study, misdiagnosis caused a median delay of 12 months in the diagnosis of palmoplantar melanomas and 18 months in the diagnosis of subungual melanomas.

Acral lentiginous melanoma can be mistaken for a variety of alternative diagnoses, including verruca, corn or callus, eccrine poroma, pyogenic granuloma, ischaemic ulceration, mal perforans from a peripheral neuropathy, gangrene, superficial fungal infection, traumatic residual, foreign body, and benign nevus. Foot lesions are often entirely overlooked by both patient and physician. Even if discovered, both patients and their healthcare providers may not readily think of melanoma as likely diagnosis.<sup>4</sup> This multifactorial delay may lead to months or years of inadequate therapeutic intervention affecting the overall patient prognosis. Pedal lesions require close observation and early biopsy if any clinical uncertainty exists or when therapeutic interventions fail.

**Figure 2.** Histological finding of the lesion (see explanations in the text)



## REFERENCES

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