

Case Report: Bowen's disease masquerading as a diabetic foot ulcer

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A 72 year old caucasian male was referred to the Diabetic Foot Clinic with a lesion on his right 5th toe, which was not responding to treatment. The patient was diagnosed with Type II diabetes 2 years previously, which was poorly controlled (HbA1c 75mmol/mol). His medical history included hypertension, dyslipidaemia and retinopathy. On examination he had palpable pedal pulses and normal transcutaneous pO₂ of 56mmHg. There was evidence of peripheral neuropathy. The lesion on his 5th toe was situated adjacent to the nail and probed approximately 3.5mm. There was no obvious erythema but the patient complained of occasional mild pain. The initial examination suggested that unsuitable footwear contributed to the development of the wound, therefore the patient was issued with off-loading footwear. The patient was prescribed antibiotics as osteomyelitis was suspected. However subsequent plain film x-ray and a white blood cell scan did not report any bony abnormality. The patient was reviewed by the vascular team. No vascular intervention was indicated. The wound failed to improve over the next eight months despite off-loading of the wound site, antibiotic therapy and regular wound care. Amputation of the 5th digit was suggested which the patient declined. Because of the atypical nature of the wound, referral to a dermatologist requesting biopsy was arranged. The initial dermatology consultation suggested the wound was a neuroischaemic ulcer, however the biopsy result was positive for Bowen's disease and excision of the lesion was carried out. The post-operative wound healed within three weeks and remains healed four years later, with no further complications. **Discussion:** Bowen's disease is described as a form of squamous cell carcinoma (SCC) in situ, commonly presenting as a solitary erythematous well-demarcated scaly plaque which may become hyperkeratotic, crusted, fissured or ulcerated. It has an estimated 3-8% rate of advancement to SCC and, following advancement, there is a 3-5% rate of invasive malignancy. Histologically there is an intact basal membrane but diffuse parakeratosis, a thickened spinous layer, but complete lack of a granular layer. Treatment options include cryotherapy, curettage, surgery, radiotherapy, 5-fluorouracil, imiquinoid cream or photodynamic therapy. **Conclusion:** This case illustrates the importance of considering further investigations when a 'neuropathic diabetic foot ulcer' does not respond to treatment.