

P4

Heel Ulcers in Diabetes Heal

C Slawinski, S Gurung & S M Rajbhandari | Lancashire Teaching Hospitals, Preston, UK

Background: Management of diabetic heel ulcers is a major challenge due to patients' relative immobility and significant co-morbidities. These ulcers are thought to have poorer outcomes, longer healing times and a higher incidence of amputation and death.

Aim: To assess heel ulcer outcomes in patients presenting to our diabetic foot clinic.

Methods: Electronic records for patients referred to diabetic foot clinic between 2003-11 for 'heel-', 'calcaneal-' and 'pressure- ulcer' were retrospectively assessed, together with relevant pathology and radiology results from the hospital reporting system.

Results: Ninety-two patients had heel ulcers, 53 (24 females) had diabetes. Mean age was 69 ± 13 years and 81% had type 2 diabetes. Mean HbA1c was $7.9 \pm 2\%$, cholesterol 4.1 ± 1.3 mmol/L and serum creatinine 127 ± 87 micromol/L. Seventeen (32%) developed heel ulcers during hospital admission. Amongst those who underwent detailed assessment, 83% had sensory neuropathy and 70% had peripheral vascular disease. Nine had calcaneal osteomyelitis requiring long term antibiotics, of which 3 healed, 3 died, 1 needed amputation and 2 remain under follow up. Vascular intervention was required in 10. Thirty-seven (70%) healed with intensive treatment in the multidisciplinary foot clinic with median healing of 6 months. Eleven (21%) had adverse outcomes: 7 non-ulcer related deaths, 2 major amputations, 2 discharged with active ulcers due to difficulty attending foot clinic. Two were lost to follow up and 3 remain under follow up. There was no difference ($p > 0.05$) in age, HbA1c, serum creatinine and serum cholesterol between those that healed and those with adverse outcome. Presence of osteomyelitis was significantly ($p = 0.02$) associated with adverse outcome. **Discussion:** The development of heel ulcers during hospital admission remains a significant problem that may be prevented. Careful examination of diabetic patients for neuropathy and ischaemia on admission, allows appropriate nursing care to be instituted. Contrary to popular belief, we found the majority of heel ulcers in diabetes heal with good multi-disciplinary care, however healing times are longer than other foot ulcers. Finally the presence of calcaneal osteomyelitis is a risk for amputation or death.