O10

The mortality of patients presenting to a single specialist centre with acute Charcot foot is similar to a control group presenting with neuropathic foot ulceration.

Juliette Van Baal, Fran Game, William Jeffcoate
Foot Ulcer Trials Unit, Nottingham University Hospitals NHS Trust, Nottingham UK.

The mortality associated with the acute Charcot foot is not clear, and its assessment is made difficult by the rarity of the condition and the influence of population selection on those managed in specialist centres. Two studies have previously reported that mortality is very low: Armstrong et al reported no deaths in a population of 55 patients, with a mean follow-up of 92.6 weeks while Fabrin et al noted just two deaths in a retrospective study with a total of 115 patients followed for a mean of 48 months. We have however, previously reported much higher mortality in a series of 47 patients who presented between 1980 and 2000. These patients were compared with a population, referred with neuropathic ulceration. 44.7% of patients with Charcot died after 3.7 years mean follow-up, compared with 34.0% of those with neuropathic ulcers, but these were not significantly different. The purpose of this study was to attempt to confirm our previous findings in a more recent population attending in the same specialist centre. Between 1st January 2000 and 1st October 2007, a total of 70 (68.8% male, 70% Type 2 diabetes, mean age 57.4 (SD ±12) years) patients presented with an acute Charcot foot to our multidisciplinary service. They were matched with 66 patients with neuropathic foot ulcers presenting during the same time period, using the specialist foot clinic register. By 1 October 2008, 13 (18.6%) patients with a Charcot foot had died (8 men) at a mean age of 61.7 ± 11.5 years and after a median of 2.1(95% CI 0.5-5.6) years. 22 (33.3%) patients in the control group had also died (20 men) at mean age of 65.1 ± 11.0 years, and after a median of 1.3 (0.2-5.6 years (p=0.13). Kaplan-Meier survival analysis was performed. Log rank tests for the equality of the survivor function for the Charcot and control patients showed no significant difference between groups (p=0.17). When the 2 cohorts (1980 to 2000 and 2000 to 2007) were combined, the median time to death in the Charcot patients was 3.7 (95%CI 0.09-14.9) years and was no different from the control ulcer patients (median 2.7 (0.2-15.5) years (p=0.57) and Kaplan-Meier survival analysis similarly showed no difference between the 2 groups (p=0.81). These data confirm the high mortality in patients with an acute Charcot foot. The reason is obscure, but may relate to an increased prevalence of arterial calcification associated with neuropathy, and the effect of arterial calcification on pulse pressure and cardiovascular mortality.