

**CDUK: a UK-wide, web-based survey of the management of the acute Charcot foot of diabetes**

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One of the problems of studying Charcot's disease lies in its relative rarity. The majority of specialists in the UK may care for only a few cases each year and therefore opportunities to validate hypotheses for diagnosis and treatment may be limited. There are few data available on time to remission, and on whether outcome is affected by interventions such as offloading with non-removable (NR) devices or the use of bisphosphonates. For this reason we set up a web-based survey of active cases of Charcot disease in the UK (CDUK), in order to define baseline characteristics, precipitating factors, management details and outcome, in as large a cohort as possible. The study was funded by Diabetes UK. Participating clinicians were invited to register anonymised details of patients with active disease being managed between 1<sup>st</sup> June 2005 and 31<sup>st</sup> December 2006, and further details were requested at 3-monthly intervals. A total of 288 (73% male) cases were registered from 76 centres. The mean age of registered patients was 57 years (range 21-90); 72% had Type 2 diabetes. Follow up data of at least 3 months is available for 231 patients. 61.6% had one or more possible precipitating events within the 6 months prior to onset (accident 36%, ulcer (35%) or surgery (12%) on the affected foot, osteomyelitis 7%). Initial management included NR offloading in 35.4% and removable off-loading in 50% of cases. However, a total of 40.3% had NR offloading device at some stage during the follow up period. 25.4% of patients received intravenous (iv) bisphosphonates, 19.4% with oral bisphosphonates, some in combination. 5.3% had more than one treatment with iv bisphosphonates. 219 of the 231 patients for whom data are available went into remission in a median time of 10 (range 2,39) months. Those who had a NR offloading device at any stage had a median (range) time to resolution of 10 (3,25) months compared to 12 (3,38) months in those who didn't (Mann Whitney U 3477, p=0.001). Those who were treated with either oral or iv bisphosphonates had a median (range) time to resolution of 12 (3,39) months compared to 10 (2,29) months in those who had none (Mann Whitney U 4496, p=0.005). Whilst the possibility of confounders cannot be excluded these data support the use of NR offloading devices in the management of acute Charcot's disease. The role of bisphosphonates requires further investigation in placebo controlled trials.