

**[P24] DEFORMATION AT FIRST PRESENTATION IS ASSOCIATED WITH ULCERATION IN ACTIVE CHARCOT FOOT:  
A PROSPECTIVE FOLLOW-UP STUDY OF 62 PATIENTS OF THE IQED-FOOT STUDY**

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**Aim:** Charcot foot is a rare but devastating complication of diabetes. We aimed to get a clear picture of the actual circumstances in which Charcot foot occurs and how it is managed. Emphasis was placed on epidemiological data (age at occurrence, diabetes duration, history of smoking,...) and data about management (time to diagnosis, deformation present at diagnosis, method of immobilization).

**Method:** Thirty-four multidisciplinary diabetic foot clinics in Belgium sampled the first 52 patients presenting with diabetic foot problems, resulting in a total of 1782 cases in 2014. 62 cases were prospectively registered as acute Charcot foot, defined as a red, swollen and warm foot, and followed up to a maximum of six months in terms of treatment and outcome. Data were collected, for the purpose of quality-of-care monitoring in the IQED-Foot study. The data were stratified in 2 different ways, after which analysis was performed. In a first comparison, a subgroup 'acute Charcot foot with wound at presentation (N=27)' and a subgroup 'acute Charcot foot without wound at presentation (N=35)' were analyzed. In a second comparison, a subgroup 'acute Charcot foot with deformation at presentation (N= 40)' and a subgroup 'acute Charcot foot without deformation at presentation (N=22)' were analyzed.

**Results/Discussion:** The prevalence of already existing deformation of an acute Charcot foot at first visit was significantly higher in case a wound was also present (85.2% vs. 48.6%,  $P<0.05$ ). The occurrence of new wounds located at the fulcrum of the deformity causing a pressure point during follow-up was significantly higher in the group of patients with wounds at the first visit (55.6% vs. 11.4%,  $P<0.05$ ). This was also the case for the occurrence of new wounds outside the pressure point (25.9% vs. 0%,  $P<0.05$ ). Considering treatment, the use of immobilization of the foot was significantly higher in the group of patients without wounds at the first visit (100% vs. 85.2%,  $P<0.05$ ). Stratifying cases with or without deformation at first visit, the only significant difference between the two groups, was the higher prevalence of wounds at the first visit in the group with deformation (57.5% vs. 18.2%,  $P<0.05$ ).

**Conclusion:** The incidence of acute Charcot foot in a population of patients with diabetic foot problems was 3.5% (62 out of 1782 cases), which is similar to the incidence (0.1% to 8%) reported in the literature. The presence of wounds and deformation proved to be significantly and positively associated at time of the first visit.

Furthermore, new wounds preferentially occurred at the fulcrum of the deformity of the acute Charcot foot by causing a pressure point. A limitation of this study is the low number of cases which is probably responsible for the lack of other significant differences between the groups.