**Low prevalence of previous lower limb revascularisation in patients with diabetes and acute Charcot foot: results from a case-control study.**

Kris Doggen,

Hilde Beele, University Hospital Ghent

Kevin Deschamps, University Hospitals Leuven

Isabelle Dumont, Diabetic foot centre Ransart, Ransart

Astrid Lavens

Viviane Van Casteren

Giovanni Matricali, University Hospitals Leuven

**Aim:** Charcot foot is a rare but devastating complication of diabetes, leading to uncontrolled inflammation and high risk of osteolysis in its acute phase. Preserved local perfusion is a hypothesized prerequisite for the detrimental inflammatory response. We sought support for this hypothesis by studying the prevalence of previous lower limb revascularisation (LLR), as a marker of peripheral macroangiopathy, in patients with diabetes and Charcot foot.

**Methods:** Patients with diabetes and incident acute Charcot foot, but without a history of diabetic foot ulcers (DFU) (Charcot group, N=50) were retrospectively identified in a database used for quality of care monitoring in 36 Belgian specialized diabetic foot clinics in the period 2005-2011. [1] Patients without Charcot foot, but who had diabetic foot ulcers (DFU), served as controls (DFU group, N=3,147). Prevalence of previous LLR was compared between both groups using logistic regression.

**Results:** The Charcot group was significantly younger than the DFU group (59.1 vs. 69.1 years, P<0.001). Age-adjusted prevalence of previous LLR was significantly lower in the Charcot group than in the DFU group (3.5 vs. 29.8%, P<0.05), while the age-adjusted prevalence of coronary artery disease and stroke did not significantly differ (41.7 vs. 38.3%, P>0.05).

**Conclusions:** Charcot foot in diabetes only seems to occur in patients without a history of LLR. Despite the limitation of the cross-sectional nature of this study, our findings support the hypothesis that among patients with diabetes, Charcot foot occurs preferentially when lower limb perfusion is preserved.

[1] Doggen K, Diabetes Metab Res Rev. 2014;30(5):435-43.