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Presentation Abstract

Session: APS.210.04-Diabetes Mellitus and CVD: Clinical Outcomes

Presentation: 11516 - Peripheral Neuropathy is an Independent Predictor of Cardiovascular Events Among Individuals With Diabetes Mellitus

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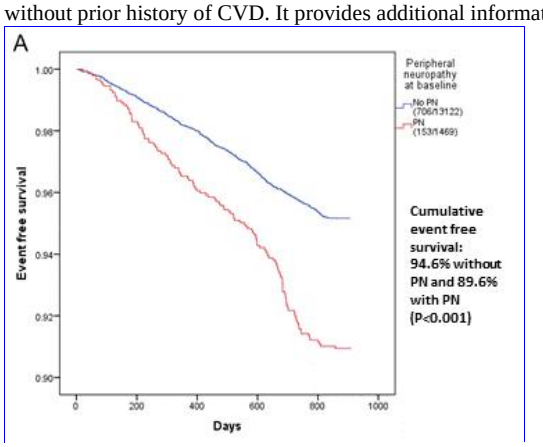
Authors: **Jack Brownrigg**, St George's Univ of London, London, United Kingdom; Andrew McGovern, Simon DeLusignan, Univ of Surrey, Surrey, United Kingdom; Kausik Ray, Robert Hinchliffe, St George's Univ of London, London, United Kingdom

Abstract: Introduction
The identification of individuals with diabetes mellitus at high risk of cardiovascular disease remains a challenge. We hypothesised that peripheral neuropathy (PN) was an independent predictor of CVD events among patients with DM, and that it could improve CVD risk prediction.
Methods
Data for individuals with DM and no prior CVD disease, with complete ascertainment of cardiovascular risk factors and information on the presence or absence of PN, were obtained from a large primary care patient cohort. The composite CVD outcome included death or any first incident MI, coronary revascularization, CCF, TIA or stroke. The association between PN and incident CVD events was evaluated in Cox regression. Improvement in risk prediction was assessed using the C-statistic, integrated discrimination index (IDI) and the net reclassification index (NRI).
Results
We report data on 14 591 patients with 36 478 person years of follow-up and 876 composite events (433 non-fatal CVD events). Figure 1 shows the association between PN and freedom from the composite event. After multivariate adjustment PN was associated with increased risk of incident CVD events (HR 1.34; 95% CI, 1.04-1.74; P=0.03). PN improved model fit and discrimination (IDI 0.006, P<0.001; relative IDI 0.7%); the NRI and clinical NRI were improved by 1.4% (P<0.001) and 4.6% (P<0.001) respectively.
Conclusions
In conclusion, peripheral neuropathy is an independent risk factor for incident CVD events in individuals with diabetes mellitus without prior history of CVD. It provides additional information on cardiovascular risk over and above conventional risk factors.



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