

[P44] IS THE PERIPHERAL VASCULAR DISEASE OF PATIENTS TYPE 2 DIABETES DIFFERENT FROM THAT OF PATIENTS WITH TYPE 1 DIABETES?

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Aim: It is usually reported that peripheral vascular disease (PVD) worsens with ageing. We aimed to investigate whether there was a different impact of ageing in macrovascular and microvascular parameters of the diabetic foot between patients with Type 1 diabetes compared to Type 2 diabetes

Method: We evaluated consecutive patients attending the diabetic foot clinic with foot ulceration. Patients had measurements taken from the arm and both feet for ABPI, TBPI, forefoot TcpO₂, forearm TcpO₂, with the derivation of TcpO₂ Index (forefoot TcpO₂ divided by forearm TcpO₂), and forefoot laser Doppler flowmetry before and after heating to derive the percentage increase. We compared measurements in the non-ulcerated foot in two groups: patients with Type 1 vs Type 2 diabetes, and sub-analysed the impact of age, duration of diabetes and vibration perception threshold (VPT). Data analysed with IBM SPSS ver 22. Data reported as Mean±SD.

Results/Discussion: There were a total of 67 patients, 21% with Type 1 diabetes and 79% with Type 2 Diabetes. There was no difference in mean age 61±13 vs 63±12 years [p=0.558] and VPT 42±12 vs 40±11 [p=0.778], but there was longer duration of diabetes in Type 1, 41±18 vs 14±8 years [p=0.001]. There was no significant difference between the mean ABPI; 1.19±0.38 vs 1.14±0.31 [p=0.667], and a non-significant correlation with age in Type 1 patients, r=0.048 [p=0.876] but there was a significant negative correlation with age in Type 2 patients; r = -0.488 [p=0.001]. There was no difference in mean TBPI 0.55±0.27 vs 0.68±0.24 [p=0.142], but a larger proportion of the Type 2 patients compared with Type 1 patients correlated with age r²=0.099 vs r²=0.306 [p=0.001]. There was no significant difference between mean forefoot TcpO₂, 52±13mmHg vs 47±15mmHg [p=0.253], and also no difference in the correlation in Type 1 and Type 2 patients with age r = -0.263 vs r = -0.306 [p=0.888]. However, their difference in correlation with age is significant if forefoot TcpO₂ is expressed as an index of the forearm TcpO₂ (r²=0.052 vs r²=0.220 [p=0.001]), postulating that TcpO₂ Index may be a more sensitive marker than forefoot TcpO₂ to detect PVD. The percentage increase in Doppler flowmetry with heating was not significantly different, 249% vs 375% [p=0.058] and there was no significant correlation with age in Type 1 (r=0.138; p=0.638), but a significant negative correlation in patients with Type 2 (r = -0.384; p=0.005).

Conclusion: These studies suggest that PVD in Type 2 diabetes correlates with age unlike PVD in Type 1, despite having a similar age and an apparent shorter duration of diabetes. Thus there needs to be more effort in earlier diagnosis and more aggressive treatment of PVD in patients with Type 2 diabetes.