[O20] SEVERITY OF FOOT PATHOLOGY (IWGDF CATEGORIES 2 AND 3) SHOWS THE STRONGEST ASSOCIATION WITH MORTALITY IN DIABETES

Dragan Tesic[1]

[1]*Novi Sad - Klinicki Centar Vojvodine, Novi Sad, Serbia*

Background and aims: Little is known on the association of foot lesions (amputations, ulcerations) and diabetic vascular complications vs. cardiovascular risk factors on mortality. Thus, we carried out a prospective 5-year study to examine the impact of established vascular complications and classical risk factors on mortality in diabetic patients.

Matherial and methods: We included 244 patients attending a diabetes clinic during the preceding 5 years: of these, 53 (group A) had meanwhile died, and 191 (group B) are still alive. Cardiovascular risk factors (hypertension, triglycerides, HDLc, LDLc, fibrinogen, proteinuria, smoking), diabetes duration, macrovascular disease [coronary artery disease (CAD), cerebrovascular disease (CeVD) and peripheral arterial disease (PAD)] were assessed. Peripheral neuropathy diagnosed by the Neuropathy Disability Score (NDS), and retinopathy was diagnosed by funduscopy. Vibration perception threshold (VPT) and Neuropad time to colour change were studied as well. The International Working Group on the Diabetic Foot (IWGDF) risk categorisation was used to quantify severity of foot pathology.

Results: There were no differences between groups A and B in the following parameters: male gender [31(58.5%) vs. 94(49.2%), p=0.23], type 1 diabetes [6 (11.3%) vs. 24 (12.6%), p=0.80], HbA_{1c} (8.9%±2.04 vs. 9.2±1.94%, p=0.17), triglycerides (1.9±1.51 vs. 1.93±1.7mmol/l, p=0.90), HDLc (1.27±0.51 vs. 1.25±0.28mmol/l, p=0.80), LDLc (3.44±0.81 vs. 3.62± 0.89 mmol/l, p=0.18), smoking [7 (13.2%) vs. 36 (18.8%), p=0.34], diabetic retinopathy [34 (64.15%) vs. 105 (54.97%), p=0.29], proteinuria (385.2±609.9 vs. 443.9±1003, p=0.23), CeVD [4 (7.55%) vs. 10 (5.23%), p=0.52], CAD [5 (9.43%) vs. 16 (8.38%), p=0.81] and combined CeVD+CHD [2 (3.77%) vs. 9 (4.71%), p=0.81]. Patients in group A exhibited significant differences in the following parameters: age at develiping foot lesions (69.2±8.77 vs. 66.2±9.7years, p=0.036), DM duration (20.2±10.45 vs. 16.96±8.8, p=0.026), hypertension [42 (79.2%) vs. 117 (61.3%), p=0.015], fibrinogen (4.3±1.11 vs. 3.89±0.88, p=0.02), ankle reflexes (AR) score (3.42± 1.06 vs. 3.04±1.28, p=0.03), Neuropad response (13.8± 8.9 vs. 10.8± 7.2min., p=0.03), VPT (3.35±3.2 vs. 4.8±3.00 V, p=0.004), and IWGDF risk category (p=0.0002). However, in multivariable logistic regression analysis including risk factors significantly associated with mortality, it was only IWGDF category 2/3 that remained significantly associated with mortality (OR: 3.78, 95% CI: 1.72-8.28, p=0.001).

Conclusion: Severity of diabetic foot pathology was a stronger prognostic factor of mortality than cardiovascular risk factors. This finding underlines the importance of timely diagnosis and management.