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Conference Abstract

P.22 Mortality in 98 Type 1 Diabetes Mellitus (T1DM) and Type 2 Diabetes Mellitus (T2DM) Individuals Presenting to a Specialist Podiatry Clinic: Foot Ulcer Location is an Independent Risk Determinant

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Keywords

Diabetes foot ulcer location mortality

ABSTRACT

Purpose/Background: We previously demonstrated in both longitudinal study and meta-analysis (pooled relative-risk RR, 2.45) [1,2] that all-cause and cardiovascular mortality is significantly higher in people with diabetes foot ulceration (DFU) than with those without a foot ulcer. In this prospective study, we looked at the factors linked to mortality after presentation to podiatry with DFU.

Methods: 98 individuals recruited consecutively from the Salford Royal Hospital Multidisciplinary Foot Clinic in Spring 2016 were followed for up to 48 months. Data concerning health outcomes were extracted from the electronic patient record (EPR).

Results: Seventeen people (17) had type 1 diabetes mellitus (T1DM), and 81 had type 2 diabetes mellitus (T2DM). 31 were women. The mean age (range) was 63.6 (28–90) years with maximum diabetes duration 45 years. Mean HbA1c was 72 (95% CI: 67–77) mmol/mol. 97% had neuropathy (International Working Group on the Diabetic Foot (IWGDF) monofilament) [2]. 62% had vascular insufficiency (Doppler studies). 69% of ulcers were forefoot and 23% of ulcers were hind foot in location. 40/98 (39.2%) died in follow-up with 27% of death certificates including sepsis (not foot-related) and 35% renal failure as cause of death. Multivariate regression analysis indicated a 6.3 (95% CI: 3.9–8.1) fold increased risk of death with hind foot ulcer, independent of age/BMI/gender/HbA1c/eGFR/total cholesterol level.

Conclusion: This prospective study has shown a close relation between risk of sepsis/renal failure and presentation to a specialist podiatry clinic with hind foot ulceration an independent risk factor, highlighting again the importance of addressing cardiovascular risk factors [3] as soon as people present with DFU.

REFERENCES

- [1] Saluja S, Anderson SG, Hambleton I, Shoo H, Livingston M, Jude EB, et al. Foot ulceration and its association with mortality in diabetes mellitus: a meta-analysis. Diabet Med 2020;37:211–18.
- [2] Schaper NC, van Netten JJ, Apelqvist J, Bus SA, Hinchlife RJ, Lipsky BA. IWGDF guidelines on the prevention and management of diabetic foot disease. Available from: iwgdfguidelines.org/wp-content/uploads/2019/05/IWGDF-Guidelines-2019.pdf. (accessed May 24, 2020).
- [3] Heald A, Lunt M, Rutter MK, Anderson SG, Cortes G, Edmonds M, et al. Developing a foot ulcer risk model: what is needed to do this in a real-world primary care setting? Diabet Med 2019;36:1412–16.

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