

FOOT CARE PRACTICE : AN INDEPENDENT RISK FACTOR FOR DIABETIC FOOT ULCER IN TYPE 2 DIABETES MELLITUS

Khaw Yam Chuan¹, Emil Fazliq Mohd¹, Chew Xin Wee²

¹Universiti Sains Malaysia, ²Universiti Teknologi MARA

Introduction: Diabetic foot ulcer (DFU) is a chronic disease that causes significant mortality and morbidity to diabetic patients worldwide, especially complication amputation. This study aims to determine the level of foot care knowledge and practice among type 2 diabetes mellitus (T2DM) patients and to determine the relationship of foot care knowledge or practice with DFU.

Methodology: A cross-sectional study was conducted in Hospital Universiti Sains Malaysia with subjects recruited from May 2019 to Jun 2020. They were recruited using convenient sampling method. Foot care knowledge and practice were obtained using a validated self-administered questionnaire. All patients were assessed for BMI, monofilament testing for neuropathy and ankle-brachial index for arterial insufficiency by single trained medical personnel.

Discussion: Among 134 T2DM patients, 56 (42.8%) patients had DFU. The mean (SD) age of the study participants was 58.3 (9.9) years. A total of 113 (84.3%) T2DM patients had good foot care knowledge, and 85 (63.4%) T2DM patients had good practice. The majority of T2DM patients with DFU had good knowledge (87.5%), but poor practice (62.5%); while T2DM patients without DFU had good knowledge (82.1%) and good practice (82.1%). Multiple Logistic Regression model showed that the foot care practice was an independent factor associated with DFU when age, peripheral diabetic neuropathy and BMI were adjusted, with an estimated adjusted odds ratio of 0.242 (95% CI: 0.077, 0.761). The foot care knowledge was not significantly associated with an increased risk of DFU when other confounders were adjusted (AOR: 1.347, 95% CI: 0.296, 6.741).

Conclusion: Poor foot care practice was significantly associated with DFU. Apart from having foot care knowledge, adherence to education regarding foot hygiene, nail care and proper footwear is strongly recommended preventing DFU and amputation. We suggest that the foot care practise adherence be evaluated and reinforced during every visit of T2DM patients to health care facilities.