

Prevalence And Associated Factors of Cardiovascular Disease Among Outpatients With Type-2 Diabetes Mellitus In WP Putrajaya: A Cross-Sectional Study

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ABSTRACT:

Introduction: Type 2 Diabetes mellitus is a global health burden and is associated with increased risk of cardiovascular disease. The prevalence of cardiovascular disease (CVD) is on the rise of mortality and morbidity in Malaysia. However, there has been a lack of research on the prevalence and associated risk factors of CVD among patients with diabetes mellitus in Malaysia. This study aimed to examine the prevalence of CVD and to determine factors associated with CVD among outpatients with type-2 diabetes mellitus (T2DM) in WP Putrajaya.

Methods: This cross-sectional study analysed secondary data from the National Diabetes Registry (NDR), year 2021 audit data. The study setting was patient with diabetes in all public health clinics (n=4) in WP Putrajaya. Cardiovascular disease refers to both ischemic heart disease (IHD) and cerebrovascular disease (CeVD). The factors been analysed were gender, age at diagnosis, duration of diabetes, smoking status, BMI level, HbA1c level, and the presence of dyslipidemia, nephropathy, retinopathy, hypertension, and diabetic foot ulcer. Descriptive and logistic regression analysis were performed using SPSS version 23.

Results: A total of 737 patients with T2DM were included in this study. CVD were detected among 42 patients (5.7%, SD: 0.23). Results from the multivariate logistic regression analysis showed that age at diagnosis (AOR= 0.25, 95% CI: 0.07-0.86), duration of diabetes (AOR= 3.56, 95% CI: 1.30-9.79) and the presence of nephropathy (AOR= 2.51, 95% CI: 1.30-4.83) were the associated factors of CVD in this population.

Discussion: Type 2 Diabetes Mellitus were at higher risk of developing cardiovascular diseases. The duration of diabetes and presence of nephropathy was associated with increased risk of vascular complications. The findings from this study suggest the appropriate treatment and management of T2DM are important to reducing CVDs. Optimized glycemic control and diabetic complications are essential to reduce morbidity and mortality in T2DM population. Hence, health policy approach and development should encompass comprehensive measure in surveillance, prevention and control of diabetes and its complications.

KEYWORDS: Type 2 Diabetes Mellitus, cardiovascular diseases, WP Putrajaya