132. Prevalence and risk factors of undiagnosed type 2 diabetes among hypertensive patients attending St. Orsola Catholic Mission Hospital, Tharaka Nithi County, Kenya

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Abstract

According to the WHO, non-communicable diseases (NCDs) were a major cause of death in 2022, accounting for 41 million (74%) of deaths worldwide. Diabetes mellitus (DM) and hypertension (HTN) are two illnesses that are not contagious but are linked closely. The objective of the research was to establish the prevalence and risk factors of undiagnosed diabetes among hypertensive patients attending St. Orsola Hospital in Tharaka Nithi County, Kenya. A cross-sectional study involving 384 HTN patients attending the outpatient medical clinic was conducted from October to December 2022. The study population consisted of patients taking anti-hypertensive medication and visiting the St. Orsola Catholic Mission Hospital HTN outpatient clinic. Hypertensive patients who were under anti-diabetes medication and pregnant patients were excluded from the study. A questionnaire containing socio-demographics and behaviours was used to collect data, while the diabetes state was confirmed based on the glycated haemoglobin (HbA1c) classification. The data was analyzed using SPSS version 20.0, performing univariate, bivariate correlation, Chi-square analysis, and multivariate, and looking at statistical significance at a p-value less than 0.05 at a 95% confidence level. The age of the participants ranged between 20 and 89 years, with the majority (62%) being below 60 years. Of these participants, 66% were women and 34% were men. Seventy-five per cent (288/384) of participants were found to be non-diabetic, with 21 (5%) with undiagnosed DM and 75 (19.5%) being pre-diabetic. Risk factors associated with undiagnosed diabetes were found to be age ($\chi2$ = 24.837, df = 4, p =.000), body mass index (BMI) ($\chi2$ = 45.838, df =4, p =.000), and marital status ($\chi2$ = 11.992, df = 4, p =.017). The study found hypertensive patients with undiagnosed diabetes in a clinical setting, indicating a missed opportunity for diagnosis. The risk factors for undiagnosed diabetes are age, BMI >25 kg/m2, and marital status. Therefore, the study recommends targeted screening for DM among hypertensive patients to enable early detection and proper intervention management.

Keywords: *Type 2 Diabetes, Hypertensive Patients, Diabetes Medication, Diabetes*