

A descriptive study on chronic kidney disease and its associated factors in patients with type 2 diabetes mellitus at the Diabetic Centre, Teaching Hospital Jaffna

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Background and objective: The prevalence of chronic kidney disease (CKD), particularly in diabetic patients, is increasing rapidly throughout the world. In the current era, many individuals in developing nations suffer from diabetes which is a major risk factor for CKD. This study aimed to determine the pattern of CKD and the association of lifestyle, sociodemographic and clinical factors with the pattern of CKD in patients with type 2 diabetes mellitus attending the Diabetic Centre, Teaching Hospital Jaffna (THJ).

Methods: This hospital-based descriptive cross-sectional study was conducted among 317 patients with type 2 diabetes mellitus (DM) attending the Diabetic Center, THJ. Data were collected using an interviewer-administered questionnaire and data extraction sheet. SPSS was used to analyze the collected data. Chi-square test was performed to assess the association of selected variables with CKD and its parameters.

Results: In total, 317 patients participated in the study. In the sample, 185 (58.4%) were female. The majority (n=284, 89.6%) were more than 40 years of age. Among the participants, 103 (32.5%) had type 2 DM for >10 years; 231 (72.9%) were non-smokers and 244 (77%) did not consume alcohol; 177 (55.8%) adhered to a diabetic diet; 248 (78.2%) had fasting blood sugar above 126 mg/dl and 259 (81.7%) had HbA1C above 6.5%. A large proportion of patients who were overweight (n=43, 19.1%) had CKD; 206 (65%) patients had hypertension and 187 (59%) had dyslipidemia. Among them, 281 (88.6%) had good drug compliance and 300 (94.6%) attended their clinics regularly. There was a significant association between following diabetic diet, duration of type 2 DM, drug compliance, hypertension and family history of CKD and the progression of CKD ($p \leq 0.05$).

Conclusion and recommendations: The study identified that not following a diabetic diet, greater duration of type 2 DM, poor drug compliance, having a family history of CKD and hypertension are significantly associated with the progression of CKD in type 2 DM patients.

Keywords: Chronic kidney diseases, Risk factors, Type 2 diabetes mellitus, Blood sugar control, Jaffna