Date	**: 21st November 2022 (Monday)**
Time	**: 1400 – 1550**
Venue	**: Tun Lanang 1**
Chief	**: Professor Dato' Mafauzy Mohamed,** *Universiti Sains Malaysia Hospital*
Head Judge	**: Professor G. R Letchuman,** *Monash University Malaysia*
Judge	**: Datuk Dr. Zanariah Hussein,** *Putrajaya Hospital*
	: Dr. Fatimah Zaherah Mohamed Shah, *Universiti Teknologi Mara*

FREE PAPER NO. 1

DIABETIC KIDNEY DISEASE AND GLYCEMIC CONTROL AMONG TYPE 2 DIABETES MELLITUS IN KUANTAN, PAHANG

Kamaluzaman, Qamarul[1], Abdullah, Fa'iza[1], A. Rahman, Md. Aris, Mohd Aznan[1], Nor Azlina[2]

[1] Department of Family Medicine, Kulliyyah of Medicine, International Islamic University Malaysia, Kuantan, Pahang, Malaysia
[2] Department of Physiotherapy, Kulliyyah Allied Health Science, International Islamic University Malaysia, Kuantan, Pahang, Malaysia

Background: Diabetic kidney disease is a well-known complication of long-standing uncontrolled Type-2 Diabetes Mellitus(T2DM). Maintaining optimum glycemic control is essential for preventing progressing diabetic kidney disease (DKD).

Objective: This study aims to determine the prevalence of DKD in Kuantan, Pahang and its association with glycemic control among T2DM patients.

Methodology: A retrospective cross-sectional study was conducted in 4 selected clinics in Kuantan District. Secondary data was collected from the 304 T2DM patients' records. Statistical analysis was done using the Pearson chi-square test and binomial logistic regression analysis.

Results: Majority were aged more than 50 years old (87.5%) with a mean age of 59.1 years old, Malay ethnicity (68.8%), and female gender (57.6%). 82.6% had diabetes for more than five years, with a mean duration of 10.1 years, and 90.5% had at least two comorbidities, including hypertension, dyslipidemia or obesity. 56.9% were treated with oral glucose-lowering drugs (OGLD) and 43.1% in combination with insulin. Among T2DM, poor glycemic control was high in Malay and Indian races, aged <60 years old and the duration of diabetes more than five years (P<0.05). The prevalence of diabetic kidney disease was 55.3% (95% CI = 54.8- 55.9%). Among them, 40.5%, 13.7% and 20.8% achieved targeted blood pressure control (<130/80 mmHg), LDL-cholesterol control (<1.8mmol/L) and optimum body mass index (BMI), respectively. 72% of DKD patients had poor glycemic control (HbA1c ≥7%). After adjustment of confounding factors (including age, gender, body mass index, LDL-cholesterol level, and blood pressure control), HbA1c level ≥7 is highly associated with diabetic kidney disease (hazard ratio [HR] = 7.20 [4.05; 12.80] ; P < 0.001).

Conclusions: More than half of T2DM patients suffer from DKD. Patients with poor glycemic control have a seven times higher risk of developing DKD than those with good glycemic control. Target HbA1c <7% is vital to curbing the progression of DKD among T2DM.

Keywords: Diabetes, Diabetic Kidney Disease, DKD