RESULTS

The cohort comprised 45 patients, with a mean age and disease duration of 53.3 and 16.3 years, respectively. Baseline mean weight was 100.3 kg, and body mass index (BMI) was 36.8 kg/m², with 88% in the obese BMI category. Baseline HbA1c was 7.9%, and HbA1c reduction was 0.74% at 6 months and 0.84% at 12 months. The proportions of patients achieving HbA1c reduction of <0.5, 0.5–<1.0, 1.0–<2.0, and ≥2.0% were 8.9, 26.7, 26.7, and 8.9%, respectively. The mean weight reduction from baseline was 4.93 kg at 6 months and 6.73 kg at 12 months. Concomitant insulin therapy was observed in 44%, with 31% reduction in total daily insulin requirement at the end of the study, along with simplification of insulin regimens.

CONCLUSION

Combination therapy with Sema-OW improved glycemic control with weight loss and enabled treatment deintensification in people with T2DM in Malaysian public tertiary diabetes care.

EP_A037

IMPACT OF GLYCEMIC BURDEN ON RENAL FILTRATION DECLINE AND PROTEINURIA IN TYPE 1 DIABETES MELLITUS

Sian Lin Toh[1], Chee Keong See[2], Wei Hong Chin[3]
[1]*Hospital Bentong*
[2]*Hospital Sultan Haji Ahmad Shah*
[3]*Universiti Malaya*

INTRODUCTION

Diabetic nephropathy is a major complication of type 1 diabetes mellitus (T1DM) and a leading cause of end-stage renal disease. This study aims to correlate long-term glycemic control and disease duration with renal decline, measured via estimated glomerular filtration rate (eGFR) and urinalysis proteinuria.

METHODOLOGY

A retrospective cohort study was conducted among 15 patients with T1DM at Hospital Bentong. Independent variables were 3-year mean glycated hemoglobin A1c (HbA1c) and duration of diabetes. Dependent variables included the change in eGFR derived from baseline and latest serum creatinine (calculated using the CKD-EPI 2021 equation), and the shift in urine protein severity, mapped to an ordinal scale, over a 3-year follow-up. Multivariate linear regression and Spearman's rank correlation were utilized for analysis.

RESULTS

The cohort consisted of 5 male patients and 10 female patients with a mean initial presentation HbA1c of 11.4%, a mean 3-year HbA1c of 9.15%, and a median disease duration of 11 years. Baseline eGFR was preserved (mean 117.15 mL/min/1.73 m²). Regression analysis revealed that for every 1% increase in mean HbA1c, eGFR declined significantly by 9.6 mL/min/1.73 m² (p = 0.002). Furthermore, each additional year of disease duration independently reduced eGFR by 1.1 units (p = 0.008). Spearman validation confirmed the strong negative correlation between HbA1c and eGFR (Rho = -0.664, p = 0.006). Conversely, the correlation between 3-year mean HbA1c and worsening proteinuria was not statistically significant (Rho = -0.067, p = 0.827), and patient gender did not significantly impact progression (p = 0.129).

CONCLUSION

Poor long-term glycemic control and longer duration of diabetes mellitus are strong independent predictors of decline in functional glomerular filtration in T1DM. While worsening proteinuria may not be detected during a short 3-year window using a standard urinalysis (UFEME), a more sensitive test such as Urine Albumin-to-Creatinine Ratio may better detect early structural kidney damage.

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CLINICAL AND BIOCHEMICAL CHARACTERISTICS OF ADULT DIABETIC KETOACIDOSIS: T1DM VS T2DM

Mohd Fyzal Bahrudin[1], Chin Voon Tong[1], Raja Nurazni Raja Azwan[1], Adilah Zulaikha Abd Latib[1], Hidayatil Alimi Keya Nordin[1], Qin Zhi Lee[1], Kean Heng Lim[1], Jia Ling Low[1], Syaza Izhar Hisham[1], Liang Wei Wong[1], Jia Whey Jacelyn Ong[2], Lisa Mohamed Nor[2], Zanariah Hussein[1]
[1]*Endocrine Unit, Medical Department, Hospital Putrajaya*
[2]*Clinical Research Centre, Hospital Putrajaya*

INTRODUCTION

The rising incidence of diabetic ketoacidosis (DKA) in type 2 diabetes mellitus (T2DM) represents a paradigm shift from its traditional recognition as a hallmark complication of type 1 diabetes mellitus (T1DM). However, contemporary data comparing clinical presentation, precipitating factors, and outcomes between these two populations remain limited.

METHODOLOGY

In this retrospective observational study, all adult DKA admissions with T1DM or T2DM at a tertiary centre between 2001 and 2025 were studied. DKA was defined according to standard biochemical criteria. Electronic medical records