

PP_A006**T1DM PATIENTS IN HOSPITAL SELAYANG: CLINICAL CHARACTERISTICS AND ASSOCIATION WITH RECURRENT DKA**

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INTRODUCTION

Type 1 Diabetes Mellitus (T1DM) patients in Malaysia are characterized by poor glycaemic control and with high prevalence of diabetic ketoacidosis (DKA) among children and adolescents. This study aimed to examine the clinical characteristics of adult T1DM patients and to explore the association with recurrent DKA.

METHODOLOGY

All adult T1DM patients under Endocrine Unit follow-up in Selayang Hospital were included. Socio-demographic data associated with co-morbidities, macrovascular and microvascular complications, acute complications such as hypoglycaemia or DKA, metabolic profile and anthropometric measurements were extracted from medical records. Diabetes distress was evaluated using the diabetic distress scale (DDS).

RESULT

This cohort included 97 patients with a median age of 28 (IQR 15) and 64.9% of them were male. The ethnic distribution was Malay (51.5%), Chinese (29.9%) and Indian (15.5%). Majority (57.9%) received only primary or secondary school education while 75.8% were from the B40 (bottom-tier household income) category. The median disease duration was 10.0 (IQR 12.0) years. Seventy-one percent of Insulin users were on an analogue insulin-based regimen. Mean HbA1c was $9.9 \pm 2.9\%$. Diabetes complications, predominantly retinopathy and diabetic kidney disease were present in 29.9% of the cohort.

Of the cohort, 35.1% had recurrent DKA in the past 5 years. This was associated with Indian ethnicity ($p = 0.047$), lower education group ($p = 0.023$), higher diabetes distress ($p = 0.013$), higher HbA1c ($p < 0.001$), non-obese ($p = 0.017$) and patients with diabetes complications such as retinopathy ($p = 0.012$) and diabetic kidney disease ($p < 0.001$). The association remained significant in the adjusted analysis for higher HbA1c (OR 1.352, 95%CI 1.073, 1.703), Indian ethnicity (OR 12.956, 95%CI 1.962, 85.56), retinopathy (OR 8.087, 95%CI 1.309, 49.95), diabetic kidney disease (OR 9.173, 95%CI 1.888, 44.56) and non-obese (OR 44.543, 95%CI 2.644, 750.43).

CONCLUSION

Our T1DM cohort had poor glycaemic control with a high burden of recurrent DKA associated with higher HbA1c, greater diabetic distress, microvascular complications and a non-obese state. Further research is warranted to explore the causal association between these factors to develop effective strategies to improve glycaemic control and the burden of DKA.