PP_P002

CLINICAL CHARACTERISTICS AND OUTCOMES OF PEDIATRIC TYPE 2 DIABETES IN HOSPITAL PUTRAJAYA

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INTRODUCTION

In Malaysia, the estimated prevalence of children and adolescents with type 2 Diabetes mellitus (T2DM) was 17.7% of all paediatric patients with diabetes (DiCARE Annual Report 2006-2007). We report the characteristics and outcomes of patients with type 2 DM in Hospital Putrajaya.

METHODOLOGY

Data retrieved from the electronic database were reviewed. All patients diagnosed with type 2 diabetes attending the Paediatric Clinic Hospital Putrajaya from January 2012 until December 2022 were included. Data were presented as mean, median and percentages.

RESULT

There was a total of 41 patients reviewed. The mean age of presentation was 11 ± 1.9 years old with a median diabetes duration of 4.3 ± 2.1 years. A majority (68.3%) presented between 10 to < 15 years old, predominantly females (63.4%) and of Malay ethnicity (65.8%). All patients had negative diabetes autoantibodies, 82.9% were obese and 92.6% had positive family history of diabetes. At presentation, 14.6% of patients had diabetic ketoacidosis (DKA). The mean fasting blood sugar was 11.3 ± 3.8 mmol/L and the mean HbA1c was 11.4 ± 3.2%. Diabetes-related complications namely hypertension, dyslipidaemia, microalbuminuria and retinopathy were observed in 24.4%, 17.5%, 17.1% and 4.9% of patients, respectively. Dyslipidaemia was detected at 2.4 ± 2.6 years, retinopathy at 2.5 ± 0.7, hypertension at 3 ± 2.3 years and microalbuminuria was detected at 3.5 ± 1.3 years from onset of DM.

There were 80.6% of patients who required insulin at initial presentations and 74.3% still needed combination therapy with metformin later on. At the end of the follow-up, only 12.1.% of patients achieved HbA1c < 6.5%, while 51.2% had HbA1c >10%.

CONCLUSION

Paediatric Type 2 diabetes patients had poor glycaemic control with early development of complications. A multi-disciplinary approach with an individualised management plan is needed to prevent the progression of the disease.