

CONCLUSION

This study has shown children with T1DM may exhibit earlier changes of DN. Poor control is a known contributing factor. Consistent screening and early treatment should be routinely done.

PP-86**Hyperthyroidism in Children – A Malaysian Tertiary Centre Experience**

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INTRODUCTION

Graves' Disease (GD) and Hashimoto thyroiditis (HT) are the most common cause of acquired hyperthyroidism in children. Use of Anti-thyroid drugs (ATD's) should be monitored and should aim for disease remission within 2 years. Radioactive iodine therapy or thyroidectomy is considered if remission is not achieved. We aim to study progress with ATD, thyrotoxicosis control and remission rate.

METHODOLOGY

This retrospective study is conducted in paediatric endocrine clinic, involving children who are diagnosed with acquired hyperthyroidism from 2006-2019. Subclinical hypothyroidism is considered if TSH is elevated with normal T4 levels. Complete remission is achieved when both clinical and biochemical parameters are euthyroid for 6 months after cessation of ATD.

RESULTS

Total of 20 patients (75% girls) were studied. Average age at diagnosis was 9.75±4.30 years old. All had carbimazole as ATD. Mean dose at diagnosis was 0.50±0.35 mg/kg/day, and propranolol 0.21±0.30 mg/kg/day. It took 2.68±2.29 months for the initial thyrotoxicosis symptoms to resolve. Mean duration on ATD was 34.40±20.96 months. Throughout treatment, 45% (n=9) had subclinical hypothyroidism (11 events), 35% (n=7) biochemical hypothyroidism (9 events) and 10% (n=2) clinical hypothyroidism (2 events). None had complete remission on ATD. One (5%) developed agranulocytosis which resolves with cessation of therapy. No hepatotoxicity reported. On average, every patient would have 1.4 episodes of relapse clinical thyrotoxicosis throughout duration of ATD. There is no significant difference between age of diagnosis and frequency of relapses (p=0.394). Two (10%) patients had thyroidectomy after an average of 41.5 months on ATD.

CONCLUSION

Whilst clinical thyrotoxicosis state can be managed with adequate dosing of carbimazole, we should consider proposing and executing definitive treatment earlier as per latest guidelines to minimise long term complications associated with hyperthyroidism.

PP-87**Lipid Profiles in Children and Adolescents with Type 2 Diabetes Mellitus**

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INTRODUCTION

The incidence of Type 2 Diabetes Mellitus (T2DM) in children has increased significantly over the last two decades. T2DM is associated with high morbidity and mortality secondary to cardiovascular disease. This association has significant pathologic implications in paediatrics where earlier onset and accelerated progression of atherosclerosis has a profound impact on mortality and quality of life.

METHODOLOGY

The objective of this study was to evaluate dyslipidaemia in a paediatric population with T2DM. The electronic medical records (EMR) of patients under the age of 18 years (n=34) with T2DM and who were under the follow-up of the Paediatric Endocrine Unit, Hospital Putrajaya were reviewed.

RESULTS

The mean age of the population was 14.5 (2.5) years with median duration of diabetes 3[1.4–4.35] years. Mean age of onset of diabetes was 11 (1.8) years with the youngest age of onset at 8 years old. The patients were 61.8% female and 38.2% male. Mean BMI z-score was 2.1±0.05 and mean HbA1c was 9.6 (2.7). On complication screening 14.7% had hypertension, 26.5% had microalbuminuria, 55.8% of patients had an elevated LDL level and 35.3% had an elevated triglyceride level. BMI z scores were positively associated with elevated LDL and triglyceride level. Patients with a HbA1c >8% had a significantly higher total cholesterol, LDL and triglyceride level (p<0.05).

CONCLUSION

Increased HbA1C and BMI were associated with adverse lipid profiles in children and adolescents with T2DM. Therefore, poor glycaemic control and obesity represent two major modifiable factors to reduce cardiovascular risk in children with T2DM.