

## Paediatrics E-Poster

### EP\_P010

#### A DESCRIPTIVE ANALYSIS OF CHILDREN WITH GRAVES' DISEASE ATTENDING PAEDIATRIC ENDOCRINE CLINIC, SARAWAK GENERAL HOSPITAL

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#### INTRODUCTION

Graves' Disease (GD) remains the most common cause of hyperthyroidism in children. Understanding the clinical and sociodemographic factors associated with disease progression and hormonal control may provide early insights for better disease management. This study aims to provide descriptive data of children with GD attending Paediatric Endocrine clinic, Sarawak General Hospital.

#### METHODOLOGY

A retrospective cross-sectional study was conducted. Medical records of all GD children attending Paediatric Endocrine Clinic, Sarawak General Hospital in 2024 were reviewed. Sociodemographic profile, laboratory findings, treatment and response were described. SPSS v30 was used for data analysis.

#### RESULT

A total of 11 patients were identified, with mean age at diagnosis of  $8.4 \pm 2.1$  years. Majority of patients were female (90.9%). Majority were Chinese (36.45), followed by Malays (27.3%), Iban (27.3%) and Bidayuh. About 54.5% had positive family history of thyroid disorders and 18.2% had Down's syndrome. The mean thyroid stimulating hormone receptor antibodies (TRAb) level at diagnosis was  $24.2 \pm 11.4$  IU/L and the median FT4 at diagnosis was 100 pmol/L (IQR 75-100). Carbimazole was the primary treatment of all patients with mean initial dose of 0.6mg/kg/day and highest dose of 0.7mg/kg/day. Propranolol was prescribed to 72.7% of patients. Normalisation of FT4 was achieved in 82% of patients with an average duration of 76 days. None of the patients achieved remission.

#### CONCLUSION

While this descriptive analysis provides insight into the clinical characteristics and management patterns of children with GD, further research with larger sample size is needed to identify predictors of remission and draw definitive conclusions regarding long-term outcomes and optimal treatment strategies.

### EP\_P011

#### CASE SERIES OF CONGENITAL HYPERINSULINISM IN A TERTIARY MEDICAL CENTER

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#### INTRODUCTION

Congenital hyperinsulinism (CHI) is the most common cause of persistent hypoglycemia in infants and children. Early and appropriate recognition and treatment of hypoglycemia is vital to minimize neurocognitive impairment. This case series is to study the molecular diagnosis, medical management and outcome of children with CHI.

#### METHODOLOGY

Medical data of 17 patients who were diagnosed with CHI from 2008 - 2024 in Hospital Putrajaya was retrieved from a medical electronic report.

#### RESULT

Hypoglycaemia occurred within the neonatal period in 70% of patients. The remaining 30% presented at infancy with the oldest age of presentation at 11 months. The highest glucose infusion rate required was 20 mcg/kg/min. Genetic test was done for 11 patients. Of these, 54.5% of patients had ABCC8 mutation while 9% had GLUD 1 and KCNJ11 gene mutation each. Gene testing was negative in 27%. In this cohort, 78.5% were responsive to diazoxide therapy, and the involved genes were ABCC8 and GLUD 1. All patients who were diazoxide non-responders responded to octreotide therapy. The genes involved were ABCC8 (80%) and KCNJ11 (20%) mutation. Neurocognitive evaluation revealed developmental delay in 11% (n=2) of patients.

#### CONCLUSION

Identification of the etiology of CHI helps guide management decisions. Prompt and effective management of patients is critical to ensure a good quality of life and neurological outcome. Molecular genetic study is useful in the management of CHI and effective management with good compliance must be ensured.