first 19 days, while the rest presented after 7 months of age. Of these, 24 cases (47.1%) were transient, with medications successfully discontinued at a mean age of 4.0 ± 2.13 years. Only 26 patients underwent thyroid scan, which was normal except for one case of thyroid agenesis. Imaging was not performed in others due to early discontinuation of therapy or loss to follow-up.

All hyperthyroid patients had autoimmune thyroid disease (4 Graves' disease, 2 Hashimoto's thyroiditis) with positive autoantibodies. The median age at presentation was 5.4 years (IQR: 2.3–10.2).

CONCLUSION

Screening for thyroid dysfunction successfully identified almost all cases in patients with Down syndrome. Notably, patients which hyperthyroidism in this cohort had co-occurring autoimmune thyroid dysfunction and demonstrated a significantly earlier age of presentation compared to the general paediatric population.

EP_P005

PREVALENCE OF HYPOTHYROIDISM AND GROWTH OUTCOMES AMONG PATIENTS WITH DOWN SYNDROME

Siti Nur Khairiah Bt Mohd Rozali[1,2], Suhaimi Hussain[1,3], Surini Yusoff[1]
[1]*Department of Paediatrics, School of Medical Sciences, Universiti Sains Malaysia*
[2]*Hospital Miri*
[3]*Hospital Pakar Universiti Sains Malaysia, Health Campus, Universiti Sains Malaysia*

INTRODUCTION

Children with Down syndrome (DS) have a higher prevalence of hypothyroidism compared to the general population, and both conditions are linked to impaired growth. This study aimed to determine the prevalence and subtypes of hypothyroidism in DS and to compare growth outcomes with controls from general population at 2 years of age.

METHODOLOGY

A retrospective review was conducted on 248 children with DS (aged 2–18 years) followed at Hospital Pakar Universiti Sains Malaysia from 2020 to 2025. Growth outcomes were analyzed in a subgroup of 41 DS children with hypothyroidism compared to 46 controls. Growth was compared using standard CDC charts for and z -scores calculated with PediTools (CDC 2–20 age). Mid-parental height, target height attainment, and height velocity were evaluated. Statistical analysis used t-tests and chi-square tests (p <0.05).

RESULTS

Of the 248 children with DS, 63.7% had hypothyroidism, predominantly subclinical (85.4%). No cases of acquired or secondary hypothyroidism were found. Children with DS had significantly lower mean height z-scores (−1.91 ± 1.45 vs. −0.54 ± 1.25; p <0.001), borderline lower height velocity (5.80 ± 2.15 vs. 6.92 ± 3.56 cm/year; p = 0.050), and fewer achieved target height (35% vs. 64.1%; p = 0.030) compared to controls. Baseline characteristics were similar between groups. Thyroid ultrasound showed normal anatomy in 50%, hypoplasia in 28.6%, and nodules in 21.4%.

Common comorbidities included congenital heart disease (78.4%), pulmonary complications (16.2%), and other anomalies (32.4%).

CONCLUSION

Subclinical hypothyroidism was the predominant subtype in DS. Affected children demonstrated poorer growth, with reduced height z-scores, slower growth velocity, and lower likelihood of achieving target height.

EP_P006

CLINICAL CHARACTERISTICS AND OUTCOMES OF PAEDIATRIC HYPERTHYROIDISM: A 10-YEAR SINGLE CENTRE RETROSPECTIVE COHORT STUDY FROM NEGERI SEMBILAN

Munzir Jamil[1], Mastura Ibrahim[1], Meenal Mavinkurve[2]
[1]*Department of Paediatrics, Hospital Tuanku Ja'afar*
[2]*Department of Paediatrics, International Medical University*

INTRODUCTION

The commonest cause of paediatric hyperthyroidism is Graves' disease. Previous studies in the Malaysian context haven't captured data from Negeri Sembilan. This study aims to describe the demographic and clinical features of children with hyperthyroidism from Hospital Tuanku Jaafar.

METHODOLOGY

A retrospective cohort study collating socio-demographic and clinical data from electronic medical records was conducted. Statistical analysis was conducted using Microsoft Excel (v2602).

RESULTS

Fourteen children between 2015 and 2025 were identified. Females comprised 93% (n = 13). The mean age at diagnosis was 9.76 ± 3.4 years, with 64% (n = 9) aged >10 years. Malay ethnicity comprised 64% (n = 9). Family history was positive in 43% (n = 6). Three (21%) children were detected