

include strengthening patient education and reinforcing guideline-based practice through regular CME sessions. However, a re-audit has not yet been conducted at the time of clinical audit reporting. An ongoing evaluation will be essential to determine the effectiveness and sustainability of these interventions in reducing preventable diabetic vision loss at PPAT Sungai Besi.

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PREVALENCE OF THYROID DYSFUNCTION IN TYPE 2 DIABETES MELLITUS AND ITS ASSOCIATION WITH BODY FAT MASS INDEX

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INTRODUCTION

Type 2 diabetes mellitus (T2DM) and thyroid disorders are common endocrine conditions with a bidirectional relationship affecting glucose and lipid metabolism. Adiposity, particularly fat mass index (FMI), may influence thyroid function, but its association with thyroid dysfunction and glycemic control remains unclear, especially in Malaysia. This study aimed to determine the prevalence of thyroid dysfunction in T2DM and its association with glycemic control and FMI at Universiti Teknologi MARA (UiTM).

METHODOLOGY

A cross-sectional study was conducted among patients with T2DM attending the Endocrine Clinic, UiTM, from December 2025 to March 2026. A total of 91 participants aged 18–70 years were recruited using convenience sampling. Demographic, clinical, anthropometric, and laboratory data were collected. Thyroid dysfunction was defined as thyroid-stimulating hormone (TSH) <0.38 or >5.33 mIU/L. Body composition was assessed using the InBody 380 to determine FMI. Data were analyzed using SPSS version 30 with descriptive statistics and Pearson correlation.

RESULTS

The prevalence of thyroid dysfunction among patients with T2DM was 7.7% (7/91), predominantly with low TSH levels. Mean hemoglobin A1c (HbA1c) in the overall study population was $7.59 \pm 1.49\%$, and mean TSH was 1.42 ± 0.95 mIU/L, within the euthyroid range. Mean FMI was 11.95 ± 5.23 kg/m², exceeding normal ranges for both men (3–6 kg/m²) and women (5–9 kg/m²). FMI showed a positive correlation with TSH level ($r = 0.379$, $p < 0.001$),

indicating that higher adiposity was associated with higher TSH levels despite remaining within the euthyroid range. Pearson correlation showed a weak, non-significant negative correlation between HbA1c and TSH ($r = -0.127$, $p = 0.229$).

CONCLUSION

The prevalence of thyroid dysfunction among patients with T2DM in our cohort was relatively low at 7.7%. However, the significant correlation between FMI and TSH level, even within the euthyroid range, suggests that adiposity may exert a clinically relevant influence on thyroid function.

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REAL-WORLD CONTINUOUS GLUCOSE MONITORING PATTERNS IN MALAYSIAN ADULTS WITH TYPE 2 DIABETES: A SINGLE-CENTRE STUDY

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INTRODUCTION

Malaysia has one of the highest diabetes prevalence rates in Asia (1 in 5), with >50% fail to achieve optimal glycemic control. Continuous glucose monitoring (CGM) provides detailed insights beyond hemoglobin A1c (HbA1c), capturing daily glucose fluctuations and variability. Real-world data describing CGM patterns and their clinical associations in Malaysian adults with type 2 diabetes mellitus (T2DM) are limited.

METHODOLOGY

This cross-sectional study analyzed CGM data from 25 Malaysian adults with T2DM, standardized over 14 days. CGM metrics included time in range (TIR), time above range (TAR), time below range (TBR), mean glucose, and coefficient of variation (CV). Weekday-weekend comparisons were performed, and correlations with age, diabetes duration, HbA1c, body mass index (BMI), treatment regimen, and complications were assessed.

RESULTS

Participants had a mean age of 56.2 ± 13.2 years (52% male), mean HbA1c $9.4 \pm 2.7\%$, diabetes duration 10.7 ± 9.0 years, and BMI 29.8 ± 9.4 kg/m². Mean TIR, TAR, TBR, mean glucose, and CV were similar between weekdays and weekends ($p > 0.34$ for all). TIR >70% was achieved by 52% of participants on weekdays and 48% on weekends, with no statistically significant difference ($p = 0.75$). Longer diabetes duration correlated with lower TIR ($r = -0.62$, p