

RESULTS

Ninety-six individuals participated in the exercise, with 64% classified as overweight or higher. Mean age was 38.9 years. All of the participants completed the 3 km walk in 30 minutes. Only 76 individuals consented to have their glucose levels checked before and after the exercise. Among the participants, 5.3% (n = 4) had pre-existing diabetes. The average sugar level before the 3 km walk was 6.12 mmol/L and decreased to 5.43 mmol/L after walking, indicating a mean reduction of 0.69 mmol/L. Gender and BMI had no significant impact on the difference in mean glucose levels. However, there was a notable difference in glucose levels among age groups, particularly in the older age group (51-60 years old), which showed a significant difference ($P = 0.038$) compared to the younger age group.

CONCLUSION

Walking provides a safe and accessible option for managing diabetes. Walking for 3 km can decrease sugar levels by up to 0.7 mmol/L within 30 mins. Additionally, it was observed that older patients experience a more pronounced reduction in glucose levels compared to younger individuals. Given that a significant proportion of patients with diabetes patients fall within the older age group, exercise is essential for better glycemic control.

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OPTIMIZING MANAGEMENT FOR ADULT TYPE 1 DIABETES MELLITUS PATIENTS: AN ENDOCRINE CLINIC AUDIT

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INTRODUCTION/BACKGROUND

Type 1 Diabetes Mellitus (T1DM) imposes significant healthcare challenges due to its lifelong management requirements.

METHODOLOGY

This study aims to assess the demographics, treatment modalities, and glycemic control among T1DM patients attending the Endocrine Clinic at Hospital Teluk Intan.

RESULTS

A total of 24 adult T1DM patients were studied, with a mean age of 28 years at presentation and a mean age of 15.21 years at diagnosis. The majority were Malay, followed by Indian and Chinese. There were more females than males. Mean duration of follow-up was six years. The most prevalent comorbidities were retinopathy, mental illness and obesity.

Only 12.5% of patients achieved target HbA1c levels (<6.5%). Basal-bolus human insulin was the most commonly prescribed regimen, followed by insulin analogues and a combination of both. Routine self-monitoring of blood glucose (SMBG) was infrequent, with only four patients adhering to it regularly. This may not accurately represent the entire nation, as some T1DM patients may be managed under private practices.

Several factors could contribute to suboptimal sugar control. First, socioeconomic challenges such as poverty may require individuals to work extensively, resulting in fewer food options besides cheap, high-glycemic index diets. Furthermore, insufficient understanding of the disease, possibly due to underlying mental health conditions, can impede individuals' comprehension of the ramifications of poorly controlled diabetes. Inadequate social support also plays a role; patients with strong familial support tend to achieve better glycemic control than those without. Another contributing factor is the absence of Diabetic Resource Centers (DRCs) in hospitals, depriving individuals of a place to seek assistance with insulin pen issues and other diabetes-related challenges.

CONCLUSION

This study highlighted the challenges in achieving optimal glycemic control among T1DM patients attending our clinic. Despite the availability of various insulin regimens, a significant proportion of patients have suboptimal HbA1c levels, emphasizing the need for treatment intensification, enhanced patient education, improved adherence to SMBG and individualized insulin titration. Addressing comorbidities and individualizing treatment regimens is crucial in enhancing the overall care of T1DM patients.