

RESULTS

Eight patients were included (mean age 45 years; 63% women; 88% Malay). All had T2DM and hypertension, while most had dyslipidemia. Mean baseline weight was 116.0 ± 22.7 kg, and mean BMI was 43.5 ± 9.0 kg/m². After a mean treatment duration of 23 months, mean weight decreased to 102.9 ± 23.8 kg, representing a mean reduction of 13.1 kg or 11.5%. Six patients (75%) achieved at least 5% weight loss, and four (50%) achieved at least 10% weight loss. Mean BMI decreased to 38.4 ± 8.4 kg/m². Mean HbA1c improved from $8.9 \pm 1.9\%$ to $6.3 \pm 0.9\%$. Systolic and diastolic blood pressure declined from 153 ± 22 to 134 ± 17 mmHg and from 91 ± 17 to 82 ± 10 mmHg, respectively. Total cholesterol, low-density lipoprotein cholesterol, and triglycerides also improved. Among insulin-treated patients, all discontinued insulin during follow-up. No treatment discontinuations due to adverse effects were recorded.

CONCLUSION

In this small real-world cohort, semaglutide was associated with meaningful weight loss, improved glycemic control, favorable cardiometabolic changes, and successful insulin deintensification. These findings support its use in routine obesity-diabetes care, although larger prospective studies are needed.

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EFFECTIVENESS OF GLP-1 RECEPTOR AGONISTS ON WEIGHT LOSS IN MALAYSIAN PATIENTS WITH TYPE 2 DIABETES

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INTRODUCTION

Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) induce clinically meaningful weight reduction in patients with type 2 diabetes mellitus (T2DM), but real-world data in Southeast Asian populations are limited. This study evaluated the effectiveness of GLP-1 RAs in achieving clinically significant weight loss in Malaysian patients with obesity and T2DM.

METHODOLOGY

A retrospective cohort study was conducted among adults with T2DM and obesity attending the Endocrinology Clinic at Hospital Sultan Abdul Aziz Shah between January 2023 and December 2024. Patients receiving GLP-1 RAs (semaglutide or liraglutide) were compared with those on standard care. Anthropometric outcomes were assessed over 6–12 months, with weight loss thresholds of ≥ 3 , ≥ 5 , and $\geq 10\%$. Between-group comparisons used Fisher's exact test, and odds ratios (OR) were calculated.

RESULTS

Eighty-five patients were included (GLP-1, $n = 47$; control, $n = 38$). The GLP-1 group achieved significantly higher rates of any weight loss (70.0% vs 41.2%; OR = 3.33, $p = 0.019$) and $\geq 3\%$ weight loss (42.5% vs 14.7%; OR = 4.29, $p = 0.011$). Number needed to treat was 3–4 patients. Proportions achieving ≥ 5 and $\geq 10\%$ weight loss were higher in the GLP-1 group but did not reach statistical significance.

CONCLUSION

GLP-1 RA therapy significantly improves the likelihood of clinically meaningful weight loss in Malaysian patients with obesity and T2DM. These findings support the integration of GLP-1 RAs into routine obesity management strategies in Southeast Asia.