

8th Annual Meeting on
Diabetes and Endocrinology

November 06-07, 2025 | Dubai, UAE

The efficacy and safety of once-daily oral semaglutide in adults with type 2 diabetes during Ramadan: A prospective observational study in Kuwait**Amna Shaghoulí, Talal Muzaffar, Habib Steitieh, Khaled Khudadah, Muneera AlRandi, Guruprasad Subbarao, Shashikanth Chetty, Ahmed Shalaby**

Glycemia Clinic, Kuwait

Background: Once-daily oral semaglutide, a glucagon-like peptide-1 receptor agonist (GLP-1 RA), is recognized for its strong efficacy in improving glycemic control in type 2 diabetes (T2D) and its role in weight management by promoting weight loss. This study evaluated its efficacy and safety during the 2023 Ramadan fast, a period associated with unique metabolic challenges.

Methods: This prospective, observational study was a sub-analysis of the O-SEMA-FAST study, which included 87 adults with T2D from Kuwait intending to fast during Ramadan. Endpoints were assessed pre-Ramadan and after 20 weeks. Adjusted means and changes in HbA1c (%) and body weight were estimated using a regression model controlling for covariates.

Results: Mean HbA1c (%) decreased from 6.75 ± 1.33 at baseline to 6.43 ± 1.20 at study end. After adjustment for age, sex, BMI, and baseline HbA1c, the mean difference was 0.32% ($p = 0.021$) (Figure 1). Mean body weight decreased from $90.41 \text{ kg} \pm 18.86$ to $88.44 \pm 19.68 \text{ kg}$ ($p < 0.001$). Adjusted weight declined from 88.64 kg to 88.16 kg [95% CI = 87.33-88.98] ($p\text{-value} = 0.045$), and mean BMI decreased from 32.65

to $32.28 \pm 6.0 \text{ kg/m}^2$ at the end of the study ($p < 0.001$). A significantly greater proportion of adherent participants achieved $\geq 0.5\%$ HbA1c reduction versus non-adherent participants (43% vs. 4.4%, $p < 0.0001$). No significant difference in $\geq 5\%$ BMI reduction was observed between the two groups (20% vs. 15%, $p = 0.585$). Oral semaglutide was well tolerated, with no severe adverse events reported. Conclusion: Oral semaglutide use during Ramadan fasting was associated with significant reductions in HbA1c, body weight, and BMI, with a tolerable safety profile and minimal adverse events. These findings suggest oral semaglutide may be a useful therapeutic option for people with T2D observing Ramadan, though further evaluation is warranted.

Biography

Dr. Amna Shaghoulí is a Consultant Endocrinologist and the visionary founder and manager of the Glycemia Clinic in Kuwait. The clinic offers a holistic patient-centered model of care. Deeply committed to improving endocrine care in Kuwait, Dr. Shaghoulí has published and presented widely on diabetes and related topics. She is a Fellow of the Royal College of Physicians of Canada (FRCPC) and has completed postgraduate programs in Endocrinology and Metabolism and Internal Medicine.