Beyond Glycemic Control: Impact of GLP-1 Receptor Agonists on GI Symptoms and Quality of Life in Type 2 Diabetes

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INTRODUCTION

- **Diabetic enteric neuropathy (DEN) is a common complication of diabetes associated with:**
  - **Gastrointestinal (GI) dysmotility**
  - **GI symptoms**
  - **Reduced quality of life**
- **Glucagon-like peptide-1 receptor agonists (GLP-1RAs) are increasingly prescribed for type 2 diabetes mellitus and obesity.**
- **The impact of GLP-1RAs on GI symptoms in patients with DEN remains unclear.**
- **Objective: Evaluate changes in GI symptoms and disease-specific quality of life following GLP-1RA initiation.**

METHODS

- **Design: Prospective observational study**
- **Population: Adults with type 2 diabetes mellitus initiating GLP-1RA therapy in the ambulatory setting**
- **Follow-up: Baseline, 3 months, and 6 months**
- **GI assessments:**
  - **Gastrointestinal Symptom Rating Scale (GSRS)**
  - **Gastroparesis Cardinal Symptom Index (GCSI)**
  - **Patient Assessment of Upper Gastrointestinal Disorders–Quality of Life (PAGI-QOL)**
- **Clinical measures: BMI, HbA1c, and demographic characteristics**
- **GLP-1RAs: Semaglutide and tirzepatide**

RESULTS

- **GLP-1RA therapy was associated with significant weight loss and improved glycemic control. (n=20)**
- **GI outcomes were mixed:**
  - **Overall GI symptoms improved by GSRS**
  - **Upper GI symptom burden increased by GCSI**
  - **Disease-specific quality of life worsened by PAGI-QOL**
- **These findings suggest that some patients may experience worsening upper GI symptoms despite metabolic benefits.**
- **Clinicians should consider monitoring GI symptoms and quality of life following GLP-1RA initiation.**

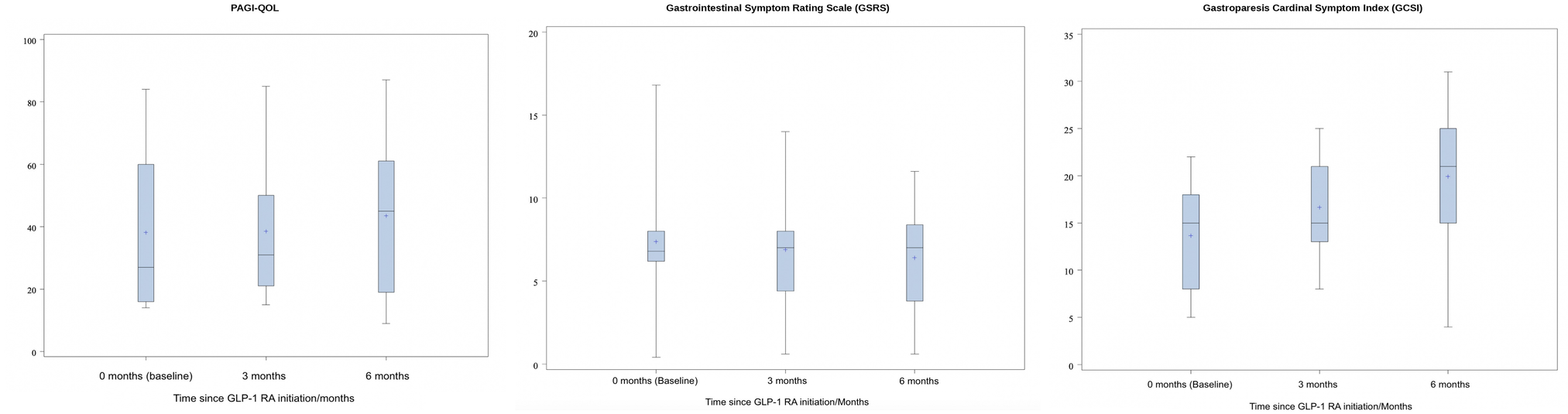


Fig 1. Box plots showing change in average Patient Assessment of Upper Gastrointestinal Disorders Quality of Life Questionnaire (PAGI-QOL), Gastrointestinal Symptom Reporting Scale (GSRS) and Gastroparesis Cardinal Symptom Index (GCSI) over time in months after initiating GLP-1 RA.

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