

EFFECTIVENESS AND TOLERABILITY OF ONCE DAILY HUMAN GLP-1 ANALOGUE LIRAGLUTIDE IN PATIENTS WITH TYPE 2 DIABETES IN A REAL LIFE CLINICAL PRACTICE SETTING

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Background and Aim :

- The incretin hormones like Glucagon-like peptide-1 (GLP-1) are intestinal peptides that enhance insulin secretion following ingestion of carbohydrates.
- Liraglutide is a GLP-1 receptor analogue which has demonstrated lasting improvement in HbA1c levels, weight reduction and improved beta cell function in patients with type 2 diabetes mellitus.
- Liraglutide is well tolerated as observed in phase 3 studies.
- This thirty four patient case series evaluates the effectiveness and tolerability of liraglutide when added to existing oral antidiabetic drugs (OADs) in patients with type 2 diabetes in a real life practice.

Methods:

- Liraglutide was started at 0.6 mg/day and it was titrated to 1.2 mg/day or 1.8 mg/day.
- Liraglutide dose of 1.8 mg/day was used by 51.8% of patients and remaining 44.4% patients were using 1.2 mg/day dose and one patient continue to use 0.6 mg/day till week 12.
- Effectiveness was assessed by change in glycemic, lipid and other parameters during 12 weeks of liraglutide treatment.

Results:

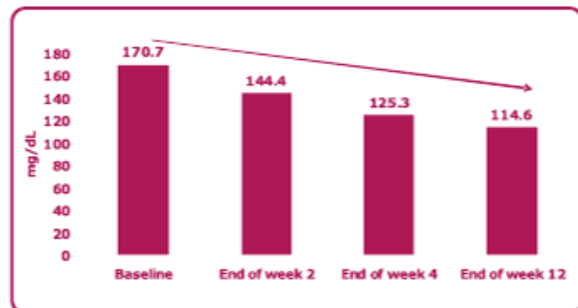
The baseline data of patients reported in this case series is provided in Table 1.

Table 1: Baseline Data of Patients

Parameters	Values
Age (Years)	43.8±1.5
Duration of diabetes (Years)	6.6±1.1
Body mass index (BMI) Kg/m ²	32.4±0.7
Fasting Plasma Glucose (FPG) Mg/dL	170.7±13.1
HbA1c (%)	8.0 ±1.5

All values mean±SD

Figure 1: Mean FPG Values Observed During the Treatment Period



The mean HbA1c was reduced to 7.2±0.2% at week 12. More than 5% reduction in body weight and BMI was observed in 11.2% and 50% of patients at week 4 and week 8 respectively. Except for one episode of minor hypoglycaemia and other mild gastrointestinal side effects like nausea, abdominal pain, gastritis and loose motion liraglutide was well tolerated.

Following initiation of liraglutide mean FPG has reduced over the period of time as shown in Figure 1.

Discussion:

In the present study, a decreasing trend in HbA1c and FPG was observed associated with reduction in body weight and BMI. In all phase 3 studies, once-daily liraglutide was well tolerated, significantly improved metabolic control, and reduced body weight, with low rates of hypoglycemia. Transient nausea was the most common side effect. Additional beneficial effects of liraglutide on beta-cell function, systolic blood pressure, and cardiovascular risks were also documented.

Conclusion: Liraglutide is an effective and well-tolerated once-daily human GLP-1 analogue that improves overall glycaemic control with significant weight reduction.

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