

Retinopathy Monitoring Practice of Patient with Type 2 Diabetes Mellitus undergoing GLP-1 Receptor Agonist Treatment

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Background/Purpose

Glucagon-like peptide 1 receptor agonist (GLP-1 RA) represents a class of medication used to treat Type 2 Diabetes Mellitus (T2DM). Studies on the effect of GLP-1 RA on diabetic retinopathy (DR) have shown that GLP-1 RA is associated with an increased risk of exacerbating DR. However, those studies did not address how primary care providers, optometrists, and ophthalmologists monitor T2DM patients when initiated on GLP-1 RA based on the guideline. This study aimed to understand the DR monitoring practice when GLP-1 RA is initiated in patients with T2DM.

Methods

A retrospective chart review was conducted over a year among the patients with T2DM at the Diabetes Clinic at Los Angeles General Medical Center. 116 patients fulfilled the eligibility criteria during the study period from May 2022 to May 2023. The primary outcome was to assess the appropriateness of retinal imaging referrals and patient presence at the appointment after initiation on GLP-1 RA. The appropriateness of follow-up appointments with optometrists and ophthalmologists according to the ADA guidelines were also evaluated. As for secondary outcome, the study aimed to evaluate the number of patients who reported worsening progression of DR as well as the relationship between the duration from the prescription date of GLP-1 RAs until the end of the study and the stage of DR.

Results

Of 116 patients, 74 (64%) were women, mean participant age was 58 years, and 91(78%) were Hispanic, Latino or Spanish origin. Initial retinal imaging appointments were scheduled for 85.3% of patients, however only 58.6 % of patients showed up to their appointment. Subsequent monitoring was reviewed, and 95% of the patients received a follow-up appointment with the ophthalmologist/optometrist according to the clinical guidelines after their initial appointment.

Conclusions

During May 2022 to May 2023, the majority of T2DM patients who are currently taking GLP-1 RA received a referral from their primary care provider to check up with an optometrist/ophthalmologist for DR monitoring. Among those patients who showed up for their initial and follow-up appointments, most of the appointments followed the clinical guidelines's frequency.