In Dutch Study Oral Semaglutide Proves Effective for Type 2 Diabetes and Weight Loss

A recent study published discusses the results of the PIONEER REAL study conducted in the Netherlands, which evaluated the efficacy of oral semaglutide in managing type 2 diabetes and supporting weight loss.

Introduction

In 2021, about 500 million people were estimated to be living with type 2 diabetes throughout the world. The prevalence of type 2 diabetes is expected to continue to rise, with researchers estimating that approximately 700 million will be diagnosed with this condition by 2045.

In the Netherlands, an estimated 1.1 million people were living with diabetes in 2021, over 90% of whom were diagnosed with type 2 diabetes. With such a high prevalence, type 2 diabetes is associated with an annual cost of €1.3 billion in the Netherlands.

The Netherlands Diabetes Federation recommends a stepwise introduction of diabetes treatments based on glycated hemoglobin (HbA1c) levels. Typically, treatment is initiated sequentially with metformin and sulphonylureas, followed by the incorporation of insulin, glucagon-like peptide-1 receptor agonists (GLP-1RAs), or dipeptidyl peptidase-4 (DPP-4) inhibitors.

Semaglutide is a GLP-1 analog currently available as daily subcutaneous and oral formulations. In addition to diet and exercise, semaglutide has been shown to effectively manage blood glucose levels in people living with type 2 diabetes and reduce their risk of cardiovascular complications such as hypertension and inflammatory responses.

The approval of semaglutide in the Netherlands was based on the results from the phase three PIONEER clinical trial. To provide additional data supporting the use of once-daily oral semaglutide, the PIONEER REAL program was subsequently initiated in various countries throughout Europe, North America, the Middle East, and East Asia. More specifically, PIONEER REAL aims to compare the efficacy of oral semaglutide with other injectable glucose-lowering medications in adults with type 2 diabetes.

Study

Between November 2020 and December 2022, the PIONEER REAL study was conducted at 27 sites throughout the Netherlands. All study participants were over 18 years of age, diagnosed with

T2D, and had never been treated with an injectable glucose-lowering drug except for short-term insulin.

The primary study endpoint was to assess changes in HbA1c levels from baseline to the end of the study, whereas secondary endpoints included changes in body weight. The study participants were also provided with a questionnaire-based assessment of treatment satisfaction.

Therapeutic Efficacy of Oral Semaglutide

Oral semaglutide recipients experienced a significant reduction in HbA1c levels from 8.6% at baseline to 7.3% at the end of the study.

About 8% of the study cohort had HbA1c levels less than 7% at baseline. By the end of the study period, 48% of participants exhibited HbA1c levels of less than 7%.

A significant reduction in body weight of 5.8 kg was observed following semaglutide treatment. Notably, the HbA1c and body weight effects of oral semaglutide treatment did not differ significantly between patients treated by diabetes or non-diabetes specialists.

The participants treated with semaglutide reported a significant level of treatment satisfaction, with 26.1% and 55.4% reporting that semaglutide was easy or very easy to consume, respectively.

By the end of the study, about 79% of participants were being treated with oral semaglutide, with a mean dose of 10.6 mg. More specifically, 53.7%, 42.2%, and 4.1% were receiving 14 mg, seven mg, and three mg doses, respectively.

Safety Profile

A total of 246 mild-to-moderate adverse effects were reported in 58% of oral semaglutide recipients. Ten severe adverse events were observed in 4.8% of participants, with one case of cholecystitis and one anal abscess likely related to oral semaglutide treatment.

Gastrointestinal disorders were the most frequently reported side effects experienced by about 45% of study participants, similar to that observed for other GLP-1RAs. Adverse effects that led to semaglutide treatment termination included nausea, vomiting, and diarrhea.

One death due to cardiac disorder occurred during the study period; however, this event was likely unrelated to semaglutide treatment.

Source:

https://www.news-medical.net/news/20240618/Oral-semaglutide-proves-effective-for-type-2-diabetes-and-weight-loss-in-Dutch-study.aspx