

“Tirzepatide for Obesity Treatment and Diabetes Prevention”

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SUMMARY

Reports on 3-year safety outcomes of tirzepatide (dual GIP/GLP-1 receptor agonist) and its efficacy in reducing weight and delaying progression of DMII in patients with obesity and prediabetes

METHOD

Phase 3, double-blind, randomized, controlled trial in which patients with obesity and prediabetes were assigned in 1:1:1:1 ratio to receive tirzepatide (once-weekly) 5 mg, 10 mg, or 15 mg or placebo for 176 weeks with a 17-week washout

RESULTS

- ⇒ No significant differences in safety profiles between tirzepatide doses and placebo
- ⇒ Mean percent change in body weight among the participants who received tirzepatide was -12.3% (5 mg), -18.7% (10 mg), and -19.7% (15 mg) versus -1.3% among those who received placebo ($P < 0.001$)
- ⇒ Fewer participants progressed to DMII in tirzepatide groups than in placebo group (1.3% vs. 13.3%; hazard ratio, 0.07; 95% confidence interval [CI], 0.0 to 0.1; $P < 0.001$)

ANALYSIS

Pros

- ⇒ Small number needed to treat (NNT) (9)—a NNT of 9 suggests a greater treatment effect size

Cons

- ⇒ Problematic inclusion criteria—mean baseline HbA1c was 5.76, merely qualifying for prediabetes, which calls into question participants' true risk for development of diabetes
- ⇒ Pharmaceutical company involvement—Eli Lilly, manufacturer of tirzepatide, was substantially involved in study, which introduces potential bias

BOTTOM LINE

As dual GIP/GLP-1 receptor agonists are already a part of most primary care practices, the data presented will not fundamentally change our current clinical practice.