

Keeping the weight off: What SURMOUNT-MAINTAIN really shows

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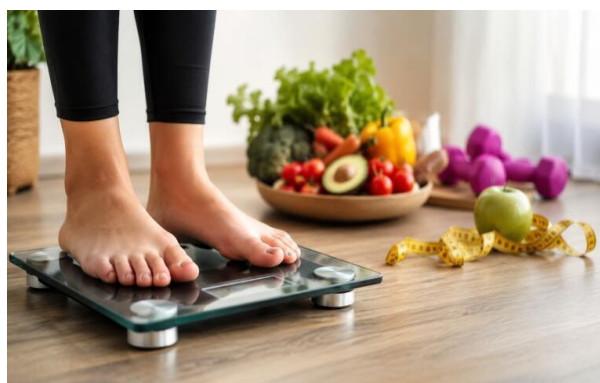
Article Summary: The SURMOUNT-MAINTAIN trial showed that using a reduced dose of tirzepatide after initial weight loss did not provide the same weight maintenance as maximum dosing but did provide improved weight maintenance over complete medication discontinuation.

Why did we need this trial?

Semaglutide and tirzepatide have been shown to cause weight loss while patients are on active medication.^{1,2} The STEP-4 trial for semaglutide and the SURMOUNT-4 trial for tirzepatide showed that many patients regain weight after stopping medication.^{3,4} SURMOUNT-MAINTAIN⁵ is the first trial to ask the question: after patients lose weight with tirzepatide, can they maintain the weight loss with a lower dose? This question matters, as people often stop treatment due to cost or side effects.

Study design

SURMOUNT-MAINTAIN followed obese patients ($>30 \text{ kg/m}^2$ or $>27 \text{ kg/m}^2$ with at least one weight-related comorbidity) for a total of 112 weeks. All patients were titrated to a maximum tolerated dose (MTD) of tirzepatide (10-15 mg/week) over



60 weeks. If patients were able to lose at least 5% body weight and reach a dose of 10 mg weekly, they were randomized to receive tirzepatide MTD, tirzepatide 5 mg, or placebo. They were followed for another 52 weeks. The primary endpoint was the average percentage change in bodyweight from baseline.

At week 84 patients regaining more than 50% of previous weight loss qualified for rescue tirzepatide. Placebo patients were reinitiated at 2.5 mg; tirzepatide 5 mg patients were increased to 7.5 mg. Both groups were titrated up to the MTD. Patients in the tirzepatide MTD group were kept at 10 mg or 15 mg.

Results

At week 112 patients in the MTD group lost the most weight (21.9%). Patients on 5 mg lost 16.6%, while those on placebo lost 9.9%. The difference between placebo and both tirzepatide groups was statistically significant. Rescue therapy

was needed in 8% of MTD patients, 25% of tirzepatide 5 mg patients, and 67% of placebo patients.

Analysis

The study used a conservative statistical method called “worst observation carried forward” (WOCF). When a patient needed rescue therapy, their highest weight before rescue was used as their final result. This approach makes it harder to show differences between groups.

It is also important to note that only patients who responded to tirzepatide during the initial run-in phase were included in the randomized part of the study. As a result, patients who stopped treatment early because of side effects or lack of benefit were not part of the final analysis.

Conclusion

The SURMOUNT-MAINTAIN trial reinforced prior research that showed patients who lose weight have a high risk of regaining that weight when discontinuing medication. When a patient experiences side effects, a reduced dose can be used, and on average can help patients maintain weight loss.

If long-term cost is a barrier, clinicians should reinforce that maintaining weight loss usually requires ongoing treatment. Planning ahead can help reduce the impact of weight cycling and support long-term health.

Acknowledgments

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