

Tirzepatide: A new indication for cardiovascular risk reduction in type 2 diabetes

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Abstract

Cardiovascular disease remains a major cause of morbidity and mortality in people with type 2 diabetes mellitus (T2DM). Contemporary diabetes management therefore extends beyond glycemic control to comprehensive cardiovascular risk reduction. Tirzepatide, a dual glucose-dependent insulintropic polypeptide (GIP) and glucagon-like peptide-1 (GLP-1) receptor agonist, provides substantial improvements in glycemia, body weight, and cardiometabolic risk factors. The aim of the presentation is to review the emerging cardiovascular outcome evidence for tirzepatide and discuss its implications for clinical management of patients with T2DM and high cardiovascular risk. The presentation will focus on SURPASS-CVOT, a large randomized, double-blind cardiovascular outcomes trial comparing tirzepatide with dulaglutide in patients with T2DM and established atherosclerotic cardiovascular disease. Tirzepatide demonstrated non-inferiority to dulaglutide for the primary composite endpoint of cardiovascular death, non-fatal myocardial infarction, or non-fatal stroke, with a hazard ratio of 0.92 (95.3% CI 0.83–1.01). The presentation will examine the clinical meaning of non-inferiority, effects on individual cardiovascular outcomes, potential mechanisms of cardiovascular risk reduction, and the relevance of weight and metabolic improvements. Emerging post-hoc evidence regarding broader cardiorenal outcomes will also be discussed. SURPASS-CVOT strengthens the cardiovascular evidence base for tirzepatide and expands its clinical relevance beyond glucose and weight management. Appropriate patient selection and integration with established cardiovascular risk-reduction strategies may position tirzepatide as an important component of comprehensive cardiometabolic care. [*J Assoc Clin Endocrinol Diabetol Bangladesh*, 2026;5(Suppl 1): S31]

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