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Acute and Stable Ischemic Heart Disease

ASSOCIATIONS BETWEEN BETA-BLOCKER THERAPY AND CARDIOVASCULAR OUTCOMES IN PATIENTS WITH DIABETES AND ESTABLISHED ATHEROSCLEROTIC CARDIOVASCULAR DISEASE: INSIGHTS FROM THE TECOS STUDY

Poster Contributions
Poster Hall, Hall F
Sunday, March 17, 2019, 9:45 a.m.-10:30 a.m.

Session Title: Acute and Stable Ischemic Heart Disease: Therapy 3
Abstract Category: 03. Acute and Stable Ischemic Heart Disease: Therapy
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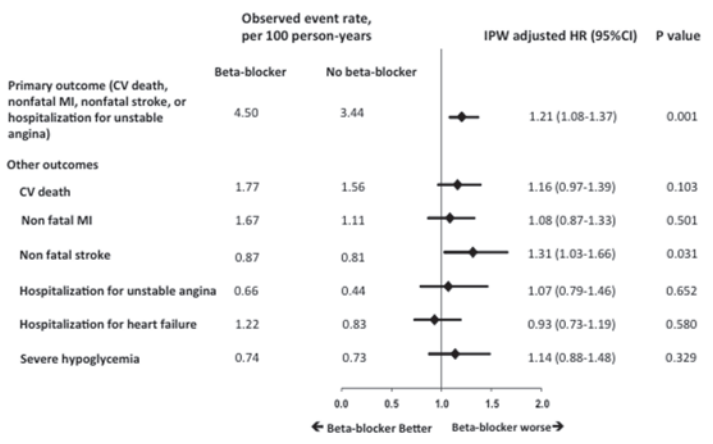
Background: The secondary prevention effects of beta-blocker therapy (BBT) in type 2 diabetes (T2D) and established atherosclerotic cardiovascular disease (ASCVD) are unclear.

Methods: Using an inverse probability of treatment-weighted Cox proportional hazards model, we examined the association between baseline BBT and the primary composite of CV death, nonfatal myocardial infarction (MI), nonfatal stroke and hospitalization for unstable angina among patients with T2D and ASCVD enrolled in the Trial Evaluating Cardiovascular Outcomes with Sitagliptin (TECOS). Additional outcomes included components of the primary composite, hospitalization for heart failure and severe hypoglycemia.

Results: Of the 14,671 patients randomized, 9,322 (64%) were on BBT at baseline; these patients were more likely to have had a prior MI or heart failure. Over a median 3.0 (25th, 75th percentile 2.2, 3.6) years follow-up, baseline BBT was associated with a significantly higher risk of the primary composite; no significant interaction was noted for prior MI or heart failure. Except for a higher stroke risk associated with BBT, no significant differences were noted for other secondary outcomes (Figure).

Conclusion: In this observational analysis, baseline BBT appears not to associate with CV risk reduction, or an increased risk of severe hypoglycemia, though possible confounding by higher BBT use among the most at-risk patients cannot be excluded. A randomized trial of BBT for secondary CV prevention in T2D is needed.

Figure. Association between baseline beta-blocker use and clinical outcomes



CI, indicates confidence interval; CV cardiovascular; HR hazard ratio; IPW inverse probability weight; MI myocardial infarction