Author has nothing to disclose with regard to commercial support.

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can influence specific postreplacement outcomes. Mazzeffi and Evans¹ remind us that these caveats are reasons why preoperative beta-blocker therapy might not be responsible for the increased rates of atrial fibrillation, transfusion, and renal dialysis seen after aortic valve replacement.

My impression is that preoperative beta-blocker therapy was a marker for sicker patients undergoing aortic valve replacement. Even in the propensity-matched cohorts, the patients taking a beta-blocker medication had an increased incidence of coronary artery disease, prior coronary artery bypass grafting procedure, renal dialysis, and cerebral vascular accidents.

Patients undergoing transcatheter aortic valve replacement during the study period were at moderate to high risk and consequently likely to have been receiving a beta-blocker medication. Those patients were excluded from the propensity-matched aortic valve replacement cohorts and potentially influenced the authors' conclusions.

A carefully planned study controlling the duration and selectivity of the preoperative beta-blocker medication will be required before we can conclude that adding beta-blocker therapy to elective aortic valve replacement protocols affects outcomes.

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REPLY: BETA OR WORSE: MORE WORK NEEDED TO DETERMINE BENEFIT OR HARM IN AORTIC VALVE SURGERY

Reply to the Editor:

The letter by Mazzeffi and colleagues¹ regarding the

article by Shubert and associates² highlights and adds to the areas in need of further qualification and confirmation that we described in our editorial.³ Although we did not bring up this important statistical point, there were enough points of comparison in this database analysis that there was likely a type I error that led to the increased incidence of postoperative atrial fibrillation in the patients who received preoperative β -blocker therapy. We also pointed out that there were no data regarding whether patients who were receiving a β -blocker preoperatively had it continued postoperatively, and we agree with the lack of information regarding the type of β -blocker used, which may have had a significant effect on the outcomes.⁴ We pointed out that 27% of the patients had moderate to severe aortic insufficiency and that Shubert and associates² should have verified that the heart rates were kept at 70 beats/min or faster before the operation to prevent the patient from entering the operation with compromised ventricles.⁵ We emphasized that when preoperative β -blockers are continued postoperatively, the dose and drug type should be chosen on an individual basis, and adequate heart rate and blood pressure should be maintained to prevent renal dysfunction, the need for transfusion, and new-onset atrial fibrillation. Finally, we agree that more studies addressing this question are needed to guide clinical practice.

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