Response to Letter Regarding Article, “Association Between Surgical Indications, Operative Risk, and Clinical Outcome in Infective Endocarditis: A Prospective Study From the International Collaboration on Endocarditis”

We appreciate the thoughtful comments of Drs Almonedro-Delia, Galvez-Acebal, and Rodriguez-Bano regarding our recent publication, “Association Between Surgical Indications, Operative Risk, and Clinical Outcome in Infective Endocarditis; a Prospective Study From the International Collaboration on Endocarditis.” These authors raise important issues for evaluating the impact of surgery on patient outcomes, particularly survival. We strongly agree that treatment selection bias and survivor bias are major issues when evaluating the impact of surgery on mortality and that the use of appropriate statistical methodologies is necessary to quantify an unbiased and causal association of the effect of surgical treatment on outcome. In our previous studies on the impact of surgery on mortality, we have used such methods, including propensity scores, to account for selection bias and Cox proportional hazards models with surgery entered as a time-dependent covariate for survivor bias adjustment. However, the objective of the current study was to evaluate the differences in clinical characteristics comparing patients treated with and without cardiac surgery for infective endocarditis, and to evaluate the relationship between surgical indications, operative risk (by using the Society of Thoracic Surgeons operative risk score), and outcome. Our results emphasize the relevance of specific surgical indications in treatment decisions in infective endocarditis, and the relationship between the Society of Thoracic Surgeons operative risk score and outcome, as well. The purpose of our study was not to determine the prognostic influence of surgery in comparison with medical therapy alone in infective endocarditis.

Disclosures

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