

## Letter to the Editor

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### Authors' Reply to the Comments of Joshua Fogel and Abhinav Saxena on Our Paper

We would like to respond to the statistical comments of Joshua Fogel and Abhinav Saxena regarding our paper entitled "Echocardiographic Predictors of Hemodynamics in Patients Supported With Left Ventricular Assist Devices." Three statistical concerns were raised in their letter.

1. Independence of variables: We had a total of 30 patients who received either a single hemodynamic assessment or hemodynamic ramp test, during which hemodynamic variables were measured during sequential left ventricular assist device (LVAD) speed settings. As a result, 102 sets of hemodynamic variables were obtained. In the linear regression analyses, the independence of each variable is required and we feel that we met these requirements. Measurements obtained during each stage of the ramp test were independent because hemodynamic variables were measured after a sufficient wash-out time after speed adjustment, thereby allowing patients to reach a steady state.
2. Variance inflation factors: We considered variance inflation factors to exclude multicollinearity. As the authors stated, a low value indicates the absence of multicollinearity, whereas a high value indicates multicollinearity concerns. We used a relatively strict cutoff of variance

inflation factors  $<2.0$  to restrict variables enrolled in the multivariate analyses, considering the relatively small sample size of our cohort. Using a strict cutoff has the risk of excluding other important factors from multivariate analyses. However, all variables significant in the univariate analyses were eventually enrolled in the multivariate analyses, regardless of the cutoff of variance inflation factors.

3. Interobserver variability: Two independent reviewers measured echocardiographic data, and the interobserver variability was calculated to validate the reliability of the measurement. Only the data measured by the first reviewer were used in this study.

### Disclosures

None.

Jonathan Grinstein, MD<sup>1</sup>  
Teruhiko Imamura, MD, PhD<sup>2</sup>  
Nir Uriel, MD, MSc<sup>2</sup>

<sup>1</sup>*Division of Cardiology, Medstar Heart and Vascular Institute, Washington, DC*

<sup>2</sup>*Department of Medicine, University of Chicago Medical Center, Chicago, Illinois*

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