

REPLY: The Diastolic Pressure Gradient Does Not—and Should Not—Predict Outcomes



Although pulmonary hypertension (PH) that occurs among patients with left heart disease (LHD) is the most prevalent form of PH, we have a very crude understanding of the range of pulmonary vascular responses to LHD and an even more rudimentary approach to its therapy. To better understand pathogenesis and develop effective targeted therapeutics, we need to refine our assessment of the pulmonary circulation in this patient population. We appreciate the clarifying comments by Dr. Brittain and colleagues that, among those patients with PH-LHD, the diastolic pressure gradient (DPG) theoretically has diagnostic utility and allows clinicians to distinguish between those with and without pre-capillary PH (1,2). Our paper focused on prognostic, rather than diagnostic, predictors, demonstrating that the premature atrial contractions (PACs) had a greater discriminatory ability than either DPG or transpulmonary pressure gradient alone; this finding makes physiological sense because the DPG does not reflect right ventricular function, whereas PAC (which incorporates right ventricular stroke volume) does (3). Given that our therapeutic armamentarium for these patients is limited, we believe that if a single assessment of pulmonary vascular disease were to be recommended, PAC would be of greater utility in the classification of patients with PH-LHD. Identification of the subset of patients with PH-LHD who are at highest risk of death has significant implications for management, including heart transplantation

eligibility considerations as well as determinations of potential treatment regimens. Finally, we believe that the ability to categorize patients with PH-LHD on the basis of mortality risk will be important for planning future therapeutic trials.

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