

Response to Letter Regarding Article, “Hemodynamic, Functional, and Clinical Responses to Pulmonary Artery Denervation in Patients With Pulmonary Arterial Hypertension of Different Causes: Phase II Results From the Pulmonary Artery Denervation-1 Study”

We read with interest the letter by Hoeper and Galiè,¹ which raised several concerns about our article² recently published in *Circulation: Cardiovascular Interventions*.

As we described in Pulmonary Artery Denervation-1 (PADN-I) study,³ the withdrawal of target drugs for pulmonary arterial hypertension was based on the clinical and hemodynamic measurements when patients had taken these targeted therapies for several years. A reason seemed to be ethical.

In terms of 12% all-cause mortality at 1-year follow-up after pulmonary artery denervation, the result is not surprising mainly because (1) most patients had been put on maximal medication for several years, without significant improvement in clinical and hemodynamic variables, indicating that patients were at high risk of death, (2) 18 patients had pulmonary hypertension secondary to left heart failure (15 with previous myocardial infarction and 3 with dilated cardiomyopathy). We have realized this number of mortality; however, it is too earlier to question that this number is too high when compared with medication because of no control group in our analysis. Again, some target drugs are toxic to patients with pulmonary arterial hypertension.

To shorten the article length, we only used group II pulmonary arterial hypertension to indicate pulmonary hypertension secondary to left heart failure. For this point, we put pulmonary hypertension secondary to left ventricular dysfunction after group II pulmonary arterial hypertension in the content. Frequent description of prostaglandin was intended to treat the left heart failure, not only focusing on pulmonary hypertension.

Yes, to further assess the clinical efficacy of pulmonary artery denervation, serial randomized clinical studies are required in future.

Disclosures

None.

Shao-Liang Chen, MD
Division of Cardiology
Nanjing First Hospital

Nanjing Medical University
Nanjing, China

Hang Zhang, MD
Du-Jiang Xie, MD
Juan Zhang, MD
Division of Cardiology
Nanjing Heart Center
Nanjing, China

Ling Zhou, MD
Division of Cardiology
Nanjing First Hospital
Nanjing Medical University
Nanjing, China

Alexander M.K. Rothman, MD
Department of Cardiovascular Science
University of Sheffield
Sheffield, United Kingdom

Gregg W. Stone, MD
Division of Cardiology
Columbia University Medical Center
and the Cardiovascular Research Foundation
New York, NY

References

1. Hoeper MM, Galiè N. Letter by Hoeper and Galiè regarding article, “Hemodynamic, functional, and clinical responses to pulmonary artery denervation in patients with pulmonary arterial hypertension of different causes: phase II results from the Pulmonary Artery Denervation-1 study.” *Circ Cardiovasc Interv*. 2016;9:e003422. doi: 10.1161/CIRCINTERVENTIONS.115.003422.
2. Chen SL, Zhang H, Xie DJ, Zhang J, Zhou L, Rothman AM, Stone GW. Hemodynamic, functional, and clinical responses to pulmonary artery denervation in patients with pulmonary arterial hypertension of different causes: phase II results from the Pulmonary Artery Denervation-1 study. *Circ Cardiovasc Interv*. 2015;8:e002837. doi: 10.1161/CIRCINTERVENTIONS.115.002837.
3. Chen SL, Zhang FF, Xu J, Xie DJ, Zhou L, Nguyen T, Stone GW. Pulmonary artery denervation to treat pulmonary arterial hypertension: the single-center, prospective, first-in-man PADN-1 study (first-in-man pulmonary artery denervation for treatment of pulmonary artery hypertension). *J Am Coll Cardiol*. 2013;62:1092–1100. doi: 10.1016/j.jacc.2013.05.075.

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Shao-Liang Chen, Hang Zhang, Du-Jiang Xie, Juan Zhang, Ling Zhou, Alexander M.K. Rothman and Gregg W. Stone

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