

## Letter by Hoepfer 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”

To the Editor:

We read with interest the article by Chen et al,<sup>1</sup> which addressed an interesting new therapeutic strategy for patients with pulmonary hypertension, but at the same time, raised several issues on the conduct of this study. Most importantly, we have serious concerns about the withdrawal of targeted therapies for investigative reasons, and we question whether this approach was ethical, as these therapies improve symptoms and outcomes, at least in patients with pulmonary arterial hypertension.<sup>2,3</sup> In addition, we take issue with the authors claiming that their procedure improved survival. There was no control group, and the reported 12% all-cause mortality after 1 year was higher than in most contemporary series.<sup>4,5</sup> Although unproven, it is possible that some of these deaths might have been related to the withdrawal of effective therapies.

The article contains additional flaws, including an incorrect classification of pulmonary hypertension (World Health Organization group II pulmonary arterial hypertension does not exist),<sup>3</sup> and baseline medications that do not meet current standards of care (in particular, the use of prostacyclin analogues in 89% of patients with pulmonary hypertension caused by left heart disease).

Novel therapeutic concepts for pulmonary hypertension are always embraced, and pulmonary artery denervation might be a promising new strategy that deserves careful investigation. Ideally, randomized, controlled, multicenter studies involving centers specialized in the care of patients with pulmonary hypertension should follow next.

### Disclosures

Dr Hoepfer has received fees for lectures and consultations from Actelion, Bayer, Gilead, GSK, and Pfizer. Dr Galiè has received grant support and personal fees from GlaxoSmithKline, Actelion, Bayer, and Pfizer.

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### References

1. Chen SL, Zhang H, Xie DJ, Zhang J, Zhou L, Rothman AMK, 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.
2. Galiè N, Manes A, Negro L, Palazzini M, Bacchi-Reggiani ML, Branzi A. A meta-analysis of randomized controlled trials in pulmonary arterial hypertension. *Eur Heart J.* 2009;30:394–403. doi: 10.1093/eurheartj/ehp022.
3. Galiè N, Humbert M, Vachiery JL, Gibbs S, Lang I, Torbicki A, Simonneau G, Peacock A, Vonk Noordegraaf A, Beghetti M, Ghofrani A, Gomez Sanchez MA, Hansmann G, Klepetko W, Lancellotti P, Matucci M, McDonagh T, Pierard LA, Trindade PT, Zompatori M, Hoepfer M. 2015 ESC/ERS guidelines for the diagnosis and treatment of pulmonary hypertension: the Joint Task Force for the Diagnosis and Treatment of Pulmonary Hypertension of the European Society of Cardiology (ESC) and the European Respiratory Society (ERS): Endorsed by: Association for European Paediatric and Congenital Cardiology (AEPC), International Society for Heart and Lung Transplantation (ISHLT). *Eur Respir J.* 2015;46:903–975. doi: 10.1183/13993003.01032-2015.
4. Hoepfer MM, Huscher D, Ghofrani HA, Delcroix M, Distler O, Schweiger C, Grunig E, Staehler G, Rosenkranz S, Halank M, Held M, Grohé C, Lange TJ, Behr J, Klose H, Wilkens H, Filusch A, Germann M, Ewert R, Seyfarth HJ, Olsson KM, Opitz CF, Gaine SP, Vizza CD, Vonk-Noordegraaf A, Kaemmerer H, Gibbs JS, Pittrow D. Elderly patients diagnosed with idiopathic pulmonary arterial hypertension: results from the COMPERA registry. *Int J Cardiol.* 2013;168:871–880. doi: 10.1016/j.ijcard.2012.10.026.
5. Dardi F, Manes A, Palazzini M, Bachetti C, Mazzanti G, Rinaldi A, Albini A, Gotti E, Monti E, Bacchi Reggiani ML, Galiè N. Combining bosentan and sildenafil in pulmonary arterial hypertension patients failing monotherapy: real-world insights. *Eur Respir J.* 2015;46:414–421. doi: 10.1183/09031936.00209914.

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