The Impact of Clinical Treatment Plan of the New Definition of Precapillary Pulmonary Hypertension

To the Editor:

We have read with great interest the recently published article in CHEST (May 2021) by Kovac et al, which indicates that the hemodynamic and clinical profiles of patients with “new precapillary pulmonary hypertension (PH)” correspond closely with the aims of the 6th World Symposium on Pulmonary Hypertension to recognize patients with early forms of pulmonary vascular disease and poor prognosis. We congratulate the authors on their efforts to shed further light on the relationship between the 2015 European Society of Cardiology/European Respiratory Society guidelines for the diagnosis and treatment of PH and the 6th World Symposium on PH. In this important field, the connection between the two has been investigated incompletely so far, and the conclusion is still controversial.

We find that at least 60% of the patients with PH in group B (only previous definition precapillary PH) in this article do not need to change their treatment plan and that approximately 40% (12 patients) may need to stop targeted drug therapy. However, the impact on patients of stopping targeted drug therapy currently is unknown. Because these patients have higher mean pulmonary artery pressure and pulmonary artery wedge pressure than those of group C (only new definition precapillary PH), worse hemodynamics are associated with higher mortality rates in PH. In group C, at least 80% of patients do not need to change their treatment plan, and only 20% (six patients) at most need to add targeted drug therapy, but there is no evidence to support the benefits of the early treatment of mild PH. Therefore, according to the 6th World Symposium on PH, more patients will stop targeted drug therapy than those who need to add targeted drug therapy. Although patients in groups C and D had significantly impaired survival rates compared with those of group A, there was no significant difference in prognosis between groups A and B. However, the sample size of groups B and C in this study was insufficiently large to fully prove this conclusion. For these reasons, in our clinical work, the majority of the patients with PH in group B need to stop targeted drug therapy. Based on the current limited evidence, the benefits of updating the PH diagnostic criteria for patients are unclear. The clinical application of the new diagnostic criteria should be approached with caution, and more clinical studies are required to provide further evidence for the patients in groups B and C.

Zhenzhen Zheng, MD
Zhanjiang, China
Riken Chen, MD
Haichun Liu, MD
Jianmin Lu, MD
Wenliang Guo, MD
Xiaofeng Wu, MD
Yuanming Zhou, MD
Guangzhou, China
Nuofu Zhang, MD
Cheng Hong, MD
Zhanjiang, China

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CORRESPONDENCE TO: Riken Chen, MD; email: chenriken@126.com

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References


Response

To the Editor:

We appreciate the interest and constructive comments of Zheng et al to our research letter on the clinical impact of the new definition of precapillary pulmonary hypertension (PH). We also welcome the opportunity to discuss potential treatment strategies for patients with mild pulmonary hemodynamic impairment, which has been addressed by the authors. In their letter, Zheng et al focused on potential changes in targeted PH therapy in those patients who either had precapillary PH according to previous criteria, but not according to the proposed new definition, or the other way around.

We do not doubt the importance to address this issue and agree that the new proposed definition of precapillary PH might lead to treatment changes in some patients, even though it has been emphasized by the 6th World Symposium for PH that the clinical practice for targeted medical PH therapy should not change. Because most pivotal trials included patients with pulmonary arterial hypertension with mean pulmonary arterial pressure $\geq 25$ mm Hg and pulmonary vascular resistance $\geq 3$ Wood units, only patients with hemodynamic values above these cutoff points should be considered for targeted PH therapy.

We believe, therefore, that the major advantage of the proposed new definition of precapillary PH is a different one. As shown in our study, the hemodynamic and clinical profiles of patients fulfilling the new definition represent more the subjects with early forms of pulmonary vascular disease and poor prognosis and may allow a better selection of patients for close follow up and future clinical trials. Having seen the development of detrimental pulmonary vascular disease especially in risk conditions for PH such as systemic sclerosis, this may be considered as a major step forward towards more effective and more personalized medicine in this field.

Gabor Kovacs, MD
Graz, Austria

References


Partial Code in Cardiac Arrest
Should It Be Allowed as an Exception?

To the Editor:

We appreciate the ethical analysis in *CHEST* (Sept 2021) by Gremmels and Bagchi concerning the theoretic and practical aspects of “partial codes” in cardiac arrest situations. Here we would like to share our reflections and opinions on this matter.

We recognize that Gremmels and Bagchi approached the ethical problem of partial code in cardiac arrest from a primarily consequentialist reasoning; in other words, a partial code is ethically unjustifiable because the clinical outcome is almost certainly hopeless, and the resulting harm is much more tangible than any potential benefit. However, we argue that under special circumstances, a partial code may be considered ethical to proceed. We would illustrate this in the following hypothetical case example.

Consider a 70-year-old man with underlying hypertrophic cardiomyopathy and who recently received

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CORRESPONDENCE TO: Gabor Kovacs, MD; email: gabor.kovacs@klinikum-graz.at

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