Evolution of clinical-hemodynamic criteria of pulmonary hypertension (message two)

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ABSTRACT. The paper analyzes the historical evolution of the definition of pulmonary hypertension (PH) and pulmonary arterial hypertension (PAH) over the past five decades based on materials from the World Symposia on PH and international guidelines.

A systematic analysis of documents and recommendations from seven World Symposia on PH (1973-2024), recommendations from the European Society of Cardiology (ESC) and the European Respiratory Society (ERS), as well as materials from the 2025 interim symposium, was conducted.

The historical development of the definition of PH demonstrates the evolution from an empirically established threshold of mean pulmonary artery pressure (mPAP) ⩾25 mm Hg (1973) to a scientifically justified decrease to >20 mm Hg (2018). Key milestones were: introduction of the concept of PAH (1998), implementation of the criterion of pulmonary vascular resistance >3 Wood units (2003-2013), development of the classification of precapillary and postcapillary PH (2009), use of diastolic pressure gradient for differentiation of subtypes (2013-2015). Current research focuses on genetic aspects, biomarkers and personalized approaches to treatment.

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The evolution of the definition of PH reflects the transformation from random clinical observations to a comprehensive interdisciplinary approach based on evidence-based medicine. Lowering the diagnostic threshold of mPAP and introducing additional hemodynamic criteria contributes to earlier diagnosis and improvement of patient prognosis. Future developments should be aimed at creating personalized therapeutic approaches and ensuring equal access to modern diagnostic and treatment methods.

KEY WORDS: pulmonary hypertension, pulmonary arterial hypertension, mean pulmonary artery pressure, jamming pressure, pulmonary vascular resistance.