Epidemiology and classification parallels of pulmonary hypertension (message four)

E.M. Khodosh[1, 2], S. Grif[3], O.K. Yakovenko[4]
1. Kharkiv National Medical University, Kharkiv, Ukraine
2. Municipal Non-Profit Enterprise "City Clinical Hospital No. 13" of the Kharkiv City Council, Kharkiv, Ukraine
3. Institute of Pathology, Sana Clinic Lichtenberg, Berlin, Germany
4. Lesya Ukrainka Volyn National University, Lutsk, Ukraine
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BACKGROUND. Epidemiological data and disease registries are an important source of evidence for clinical practice and healthcare delivery, especially in the absence of randomized controlled trials. Most of what we know about pulmonary arterial hypertension today comes from observational studies conducted within national and/or international disease registries.
OBJECTIVE. To critically review the role of epidemiological data, disease registries, and their cyclical interaction in the evolution of the pulmonary hypertension classification system.
MATERIALS AND METHODS. The work is based on the results of observational studies. We used epidemiological and natural history register data to estimate the nonfatal and fatal burden of pulmonary hypertension in six countries and territories from 1995 to 2023. Standard approaches were used to model the global significance of the disease. We focused on pulmonary hypertension groups 2-5 and excluded group 1, i. e. pulmonary arterial hypertension.
RESULTS AND DISCUSSION. The development of the classification of pulmonary hypertension is analyzed – from the division into primary and secondary to the current 5-group system of the World Health Organization (2013). An in-depth analysis was performed and six key epidemiological parallels were identified (in particular, the impact of epidemiological rarity or, conversely, prevalence on the classification grouping) that reflect the evolution of the understanding of this syndrome.

CONCLUSIONS. The prospects for further development of registries and classification of pulmonary hypertension in the era of "big data" are outlined. It is indicated that the integration of information sources can provide a deeper understanding of the hemodynamic component of the risk group and expand the diagnostics of chronic thromboembolic pulmonary hypertension. The inextricable link between epidemiological data and classification changes is proven.

KEY WORDS: pulmonary hypertension, epidemiology, classification, chronic thromboembolism, hemodynamics, risk factors.