



The 6th World Symposium on PH: PH in Chronic Lung Disease and Hypoxia (Part 5)

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Expert Analysis

Note: This is **Part 5** of a 6-part series on the 6th World Symposium on PH.

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Chronic lung disease-associated pulmonary hypertension (PH) is associated with reduced functional ability, impaired quality of life, greater oxygen requirements, and increased risk of mortality compared with patients with chronic lung disease. At this time, it is uncertain whether the presence of PH is causative or a surrogate of worse outcomes in chronic lung disease. However, patients with chronic lung disease-associated PH have the worst outcomes of all patients with PH.

Screening for PH in Chronic Lung Disease

Elevated plasma levels of brain natriuretic peptide and N-terminal pro-brain natriuretic peptide may increase suspicion for PH. Echocardiography is the best noninvasive modality to screen for chronic lung disease-associated PH. Ratio of main pulmonary artery to ascending aorta >1 may also predict PH.

Diagnosis

Right heart catheterization is the gold standard for diagnosis of chronic lung disease-associated PH, but suspicion for underlying PH does not mandate the completion of right heart catheterization, especially if the right heart catheterization results will not influence therapy or management decisions, including referral for transplantation. Right heart catheterization may be considered when clinical worsening, progressive exercise limitation and/or gas exchange abnormalities are not deemed attributable to ventilatory impairment and an accurate prognostic assessment is considered important. There are no valid data to support the routine use of acute vasodilator testing in chronic lung disease-associated PH.

Hemodynamic Definition

Chronic lung disease with PH is defined as mean pulmonary arterial pressure (mPAP) = 21-24 mmHg with pulmonary vascular resistance ≥ 3 Wood units or mPAP = 25-34 mmHg. Chronic lung disease with severe PH is defined as mPAP ≥ 35 mmHg or mPAP ≥ 25 mmHg with low cardiac index ($< 2.0 \text{ L} \cdot \text{min}^{-1} \cdot \text{m}^{-2}$).

Treatment

Currently, there are no strong data proving pulmonary arterial hypertension-specific therapy improves outcomes in chronic lung disease-associated PH. It is recommended that these patients be referred to expert centers for further treatment options.

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