

Chronic Thromboembolic Pulmonary Hypertension – From Diagnosis to Intervention

Kazuhiko Nakayama¹, Noriaki Emoto^{1,2}

¹Division of Cardiovascular Medicine, Department of Internal Medicine,
Kobe University Graduate School of Medicine, Kobe, Japan

²Department of Clinical Pharmacy, Kobe Pharmaceutical University, Kobe, Japan
Email: nakayama@med.kode-u.ac.jp

Currently, we recognized the growing importance of chronic thromboembolic pulmonary hypertension (CTEPH) in the diagnosis of pulmonary hypertension (PH).

Although epidemiological studies have reported relatively low incidence of CTEPH between 0.4 and 9.1% after symptomatic pulmonary embolism, several PH registries revealed that CTEPH occupied considerable fraction between 16 and 42% in all PH patients. The fact suggests that quite a bit of CTEPH develops subclinically, which could cause that many cases were underdiagnosed. Aged female, deep vein thrombosis, abnormal coagulation profile, chronic dyspnea, and exertional hypoxemia should be recognized as the preface for detailed screening of CTEPH. Pulmonary hemodynamics by right heart catheterization and lung perfusion defects by pulmonary angiography, or perfusion scintigraphy are necessary for the accurate diagnosis.

Because of the limited efficacy of pulmonary vasodilators on CTEPH, pulmonary endarterectomy (PEA) have been a golden standard therapy. Furthermore, recent progress of balloon pulmonary angioplasty dramatically improved the prognosis of inoperable CTEPH. In this decade, the development of multimodal approaches using surgery, catheter intervention, and pulmonary vasodilator has achieved a remarkable improvement of the prognosis, which renews our awareness of the importance of a proper diagnosis for CTEPH. The updated optimization of the diagnosis and treatment for CTEPH will be discussed in this session.