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# The Importance of Echocardiographic Screening for Pulmonary Arterial Hypertension in Korean Patients with Systemic Sclerosis

Hack-Lyoung Kim, MD, PhD
*Division of Cardiology, Department of Internal Medicine, SMG-SNU Boramae Medical Center, Seoul National University College of Medicine, Seoul, Korea*

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Recognition of pulmonary arterial hypertension (PAH) associated with systemic sclerosis (SSc) (SSc-PAH) is very important, because SSc-PAH is highly prevalent and is a leading cause of mortality in patients with SSc.[1)2)] Despite the use of novel therapeutic strategies, response to PAH-targeted therapy is still insufficient in SSc-PAH, which is associated with poor prognosis in SSc-PAH.[3)] Indeed, it has been reported that PAH develops in 12% of patients with SSc, and about 50% of SSc patients die within three years of SSc-PAH diagnosis.[4)] Initially, there have been argues that early diagnosis and management of SSc-PAH can improve patients' outcomes,[5)] but recent clinical trials and cohort studies have clearly demonstrated the beneficial effect of early treatment for SSc-PAH.[6)7)] Therefore, current guideline recommends annual echocardiographic screening for the detection of SSc-PAH.[8)] Right heart catheterization (RHC) is required for patients in whom the results of echocardiography are suggestive of PAH, to confirm diagnosis.[8)]

In this issue of the Journal of Cardiovascular Ultrasound, Yoo et al.[9)] performed echocardiography and RHC for the evaluation of PAH in 37 adult Korean patients with SSc. The authors showed that the prevalence of SSc-PAH in study patients was 21.6% in echocardiography and 13.5% in RHC. This SSc-PAH prevalence is similar to prior studies performed in other countries.[4)10)] The result of this study is meaningful and deserves clinical attention, because this is the first study primarily focused on the prevalence of SSc-PAH in Korea using RHC. Despite of clinical importance of SSc-PAH, there has been limited data assessing the prevalence of SSc-PAH in Korean patients. To understand and treat a disease properly, it is critical to know the exact prevalence of the disease and to grasp what proportion of patients affected by the disease. Of course, it is obvious that this single center study with small number of subject cannot reflect exact prevalence of SSc-PAH in entire Korea. However, the prevalence can be assumed to be similar as long as significant regional disparities don't exist, because all SSc patients in study hospital were tried to be investigated. Another finding in this study that cannot be ignored is that two patients without any chest symptoms had PAH in echocardiography. This result emphasizes the importance of SSc-PAH screening even in patients without symptoms. Fortunately, recent Korean insurance organization has begun to extend insurance coverage of the use of echocardiography. With this opportunity, more active screening for SSc-PAH should be encouraged, and multi-center studies with a large sample size should be performed to confirm findings of this study. Additionally, studies specifying the characteristics of patients with PAH compared to those without PAH in SSc patients also provide us clinically valuable information, and should be performed. In conclusions, clinicians should recognize the importance of early treatment of SSc-PAH, and make an effort for the early detection of SSc-PAH by the use of useful screening tools such as echocardiography.

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• Address for Correspondence: Hack-Lyoung Kim, Division of Cardiology, Department of Internal Medicine, SMG-SNU Boramae Medical Center, Seoul National University College of Medicine, 20 Boramae-ro 5-gil, Dongjak-gu, Seoul 07061, Korea
Tel: +82-2-870-3235, Fax: +82-2-831-0714, E-mail: khl2876@gmail.com

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