

Editorial



Korean Valve Survey: Is This Just the Beginning? What Is the Next Step?

Seonhwa Lee , MD, and Hyungseop Kim , MD, PhD

Division of Cardiology, Department of Internal Medicine, Keimyung University Dongsan Medical Center, Daegu, Korea

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Address for Correspondence:

Hyungseop Kim, MD, PhD

Division of Cardiology, Department of Internal Medicine, Keimyung University Dongsan Medical Center, 1035 Dalgubeol-daero, Dalseo-gu, Daegu 42601, Korea.
Email: khyungseop@dsmc.or.kr

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The prevalence of valvular heart disease (VHD) is growing worldwide with the aging population. Furthermore, VHD is an important cause of mortality and morbidity.¹⁾ The epidemiology of VHD varies around the world. This functional and degenerative disease is dominant in high-income countries, while rheumatic heart disease (RHD) is dominant in low to middle-income countries.²⁾³⁾

Management of VHD has been subject to significant changes. Recently, non-surgical treatment options such as transcatheter intervention are emerging in the treatment of VHD. This development increased the need for surveillance of the changing epidemiology of VHD, which is critical to advance clinical practice. A large-scale national study evaluated the epidemiology of VHD and current treatments, including intervention and medical treatment.⁴⁾⁵⁾ However, there have been no studies on the epidemiology of VHD in Korea.

In the present study, Choi et al.⁶⁾ retrospectively investigated the epidemiological of valve diseases in Korea using nationwide retrospective cohort data from the Korean Valve Survey collected from 45 hospitals. The authors described the demographics and etiologies according to VHD. In addition, the authors showed that degenerative disease is predominant, while RHD is present in a minor proportion in Korean people. These findings have not been confirmed in clinical practice, and the current study finally provides a valuable basis for physicians.

As population aging progresses, functional and degenerative VHD is increasing and is becoming a primary cause of VHD worldwide.⁴⁾⁵⁾ In line with this global trend, degenerative VHD was the most common cause of VHD in Korea, with degenerative aortic stenosis (AS) as the specific most common and highly age-related cause. Most aortic valve stenosis was compatible with a severe grade of AS in terms of peak velocity (3.9 m/s) and aortic valve area (0.96 to 1.04 cm²). Patients have relatively well-preserved left ventricular ejection fraction, left ventricular dimensions, and wall thickness. There may likely be adequate time to correct AS before deterioration of left ventricular function. Therefore, as transcatheter aortic valve implantation now is insured in Korea, it is more important to recognize the prevalence of degenerative AS.

In mitral valve disease, RHD remains the most common cause of mitral valve stenosis despite the reduced incidence of acute or subacute rheumatic fever in developed countries. Contrary

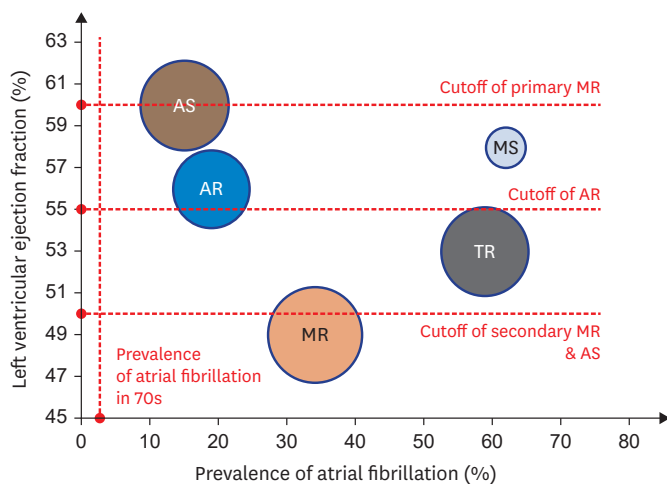


Figure 1. The prevalence of VHD. Relationship between VHD and left ventricular ejection fraction with atrial fibrillation in patients with a mean age of 70. The circle area indicates the prevalence of each valvular disorder, and the dashed line indicates the cutoff value of left ventricular ejection fraction for surgical correction and the prevalence of atrial fibrillation in patients in their 70s.⁷⁾ AS: aortic stenosis, AR: aortic regurgitation, MR: mitral regurgitation, MS: mitral stenosis, VHD: valvular heart disease, TR: tricuspid regurgitation.

to rheumatic mitral stenosis, most mitral regurgitation (MR) is related to degenerative or prolapse (primary) and non-ischemic (secondary) etiologies, which can be triggered and accelerated by aging, hypertension, and atrial fibrillation. The current study showed that secondary MR accounts for half of MR cases, which have increased as the population ages. Furthermore, since left ventricular systolic dysfunction and enlarged chambers are mostly found in MR patients, appropriate therapeutic interventions are required within a short period of time. In addition, atrial fibrillation is believed to contribute greatly to MR among the various comorbidities (Figure 1).⁷⁾


With development of the percutaneous interventional technique, transcatheter mitral valve repair results in marked clinical improvement in patients with secondary MR and heart failure.⁸⁾ Given the increased prevalence of MR with systolic dysfunction in this study, it is expected that many patients could survive and benefit from earlier treatment.

Attention to the tricuspid valve has increased in recent years with recognition of the impact of secondary tricuspid regurgitation (TR) on mortality.⁹⁾¹⁰⁾ Functional TR is the most common cause of severe TR in the Western world.¹¹⁾ Similarly, in Korea, functional TR accounts for most cases of TR. Surgery on isolated TR is not common, but new non-surgical interventions will provide significant improvement potential for TR treatment.¹²⁾

In brief, VHD is a global issue with regional variation, and previous studies have reported the global epidemiology of VHD,

including regional differences.¹³⁾¹⁴⁾ To the best of our knowledge, the study by Choi et al.⁶⁾ is the first to evaluate the current epidemiology of VHD in Korea. It is likely that the epidemiology of VHD has changed with Korea's economic development and population aging. Therefore, this study will be valuable and will help many physicians create guidelines for treating patients with VHD. However, epidemiological data on patients who underwent surgical or transcatheter valvular intervention are limited, while the number of valve corrections is increasing tremendously. Therefore, further study is required to analyze the actual management of VHD and to compare practice with updated guidelines.

ORCID iDs

Seonhwa Lee 
<https://orcid.org/0000-0002-1620-795X>
 Hyungseop Kim 
<https://orcid.org/0000-0001-7056-4221>

Conflict of Interest

The authors have no financial conflicts of interest.

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