“All-inclusive” guidelines on bicuspid aortic valve–related aortopathy

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Joon Bum Kim, MD, PhD (left), and Ho Jin Kim, MD (right).

Much as debates have raged regarding the postulated main etiology of bicuspid aortic valve (BAV)–related aortopathy between “hemodynamic influences” versus “intrinsic wall abnormality,” when to replace the aorta has long been disputed, depending on views regarding its “malignant” versus “benign” prognosis if left untreated surgically. As manifested by the conflicts between the 2 major practice guidelines in 2010 and 2014 on BAV-related aortopathy,^{1,2} disagreements are mainly grounded in the lack of sufficient scientific evidences, leaving experts’ opinions to dominate the consensus regarding surgical treatment. Nevertheless, with the more recent evidence supporting a benign prognosis for BAV-related aortopathy,³ the discrepancies between the 2 guidelines regarding the triggers for surgical repair in BAV-related aortopathy have finally converged in the 2016 Clarification Statement.⁴

The heterogeneous and complex nature of BAV-related aortopathy still leaves many aspects of this disease to be clarified. Combined with the high prevalence of BAV worldwide (approximately 2% of the population),⁵ the impact of treatment strategies may be implicated, with a huge number of individuals affected by BAV-related aortopathy. In light of these issues, there have been calls for guidelines that are dedicated entirely to BAV-related aortopathy, that synthesize the current knowledge of this disease, and that address the knowledge gaps. In the “American Association for Thoracic Surgery Consensus Guidelines on Bicuspid Aortic Valve–Related Aortopathy,”⁶ published in this issue of the *Journal*, the writing committee have collected the best available evidence and summarized the overall aspects of BAV-related aortopathy.

In accordance with the 2016 Clarification Statement,⁴ the recommendations⁶ suggest relatively conservative approaches in the surgical repair of BAV-related aortopathy, and here are the condensed summaries: the recommendations for aortic repair are classified as (1) level I (must-

do) in patients with the aortic diameter at least 55 mm, (2) level IIa (reasonable) in patients having risk factors with the diameter at least 50 mm, (3) level IIb (maybe beneficial) in patients with the diameter at least 50 mm if operated on by experienced surgical teams, and (4) level IIa in patients with the diameter at least 45 mm undergoing cardiac surgery. The writing committee⁶ sought to offer balanced arguments judging the operative risks of additional aortic surgery and the complication risks of the diseased native aorta if not surgically treated. In addition, it is noteworthy that these guidelines uniquely offer separate recommendations with regard to the arch repair: (1) class I for maximal diameter of at least 55 mm, (2) class IIa for at least 50 mm, and (3) class IIb for at least 45 mm as a concomitant procedure during cardiac surgery.

As argued by the writing committee,⁶ unanswered questions still remain with regard to BAV-related aortopathy, which are yet to be reflected in the current guidelines. Notwithstanding, the Consensus Guidelines should be a must-read for cardiovascular clinicians who are willing to manage BAV-related aortopathy comprehensively as an independent disease entity, not as a subordinate to aortic or valvular disease.

In addition, the authors of the Consensus Guidelines are so considerate. Who else would kindly recommend prohibiting public driving for those with aortic diameter of at least

Central Message

The AATS Consensus Guidelines are a must-read for clinicians willing to manage BAV-related aortopathy comprehensively as an independent disease entity, not subordinate to aortic or valvular disease.

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55 mm and private driving for those with aortic diameter of least 60 mm, for the sake of people's safety?

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