Surgery for aortic dilatation in patients with bicuspid aortic valves

A statement of clarification from the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines

Endorsed by the American College of Radiology, The American Association for Thoracic Surgery, American Society of Echocardiography, American Stroke Association, Society for Cardiovascular Angiography and Interventions, Society of Cardiovascular Anesthesiologists, Society of Interventional Radiology, Society of Thoracic Surgeons, and the Society for Vascular Medicine

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The online-only comprehensive table of author relationships with industry and other entities is available at http://jaccjacc.acc.org/Clinical_Document/TAD_VHD_Guideline_Clarification_Author_Comprehensive_RWI_Table.doc.

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ABSTRACT

Two guidelines from the American College of Cardiology (ACC), the American Heart Association (AHA), and collaborating societies address the risk of aortic dissection in patients with bicuspid aortic valves and severe aortic enlargement: The "2010 ACCF/AHA/AATS/ACR/ASA/SCA/SCAI/SIR/STS/SVM Guidelines for the Diagnosis and Management of Patients With Thoracic Aortic Disease" (*J Am Coll Cardiol*. 2010;55:e27-130) and the "2014 AHA/ACC Guideline for the Management of Patients With Valvular Heart Disease" (*J Am Coll Cardiol*. 2014;63:e57-185). However, the 2 guidelines differ with regard to the recommended threshold of aortic root or ascending aortic dilatation that would justify surgical intervention in patients with bicuspid aortic valves. The ACC and AHA therefore convened a subcommittee representing members of the 2 guideline writing committees to review the evidence, reach consensus, and draft a statement of clarification for both guidelines. This statement of clarification uses the ACC/AHA revised structure for delineating the Class of Recommendation and Level of Evidence to provide recommendations that replace those contained in Section 9.2.2.1 of the thoracic aortic disease guideline and Section 5.1.3 of the valvular heart disease guideline.

See Editorial Commentary page 967.

The association between bicuspid aortic valve (BAV) and dilatation of the aortic root and ascending aorta is well established, as is the risk of aortic dissection in patients with BAV and severe aortic enlargement. However, data are limited with regard to the aortic diameter at which the risk of dissection is high enough to warrant operative intervention in patients who do not otherwise fulfill criteria for aortic valve replacement (AVR) on the basis of severe aortic stenosis or aortic regurgitation. Two guidelines from the American College of Cardiology/American Heart Association (ACC/AHA) and collaborating societies differed with regard to the recommended threshold of aortic root or ascending aortic dilatation that would justify surgical intervention in such patients.[1,2] A subcommittee representing members of the 2 writing committees, which met current organizational policies for disclosure of relationships with industry (Appendix 1), was convened to review the evidence, reach consensus, and draft the present statement as an addendum to both guidelines. The evidence table to support this addendum is available as an Online Data Supplement. This statement was approved by the 2 guideline writing committees, underwent peer review (Appendix 2), and received formal approval by the ACC and AHA and endorsements by partner/collaborating organizations. The following recommendations replace those contained in Sections 9.2.2.1 and 5.1.3, respectively, of the original guidelines[1,2] and use the revised structure for delineating the Class of Recommendation and Level of Evidence adopted by the ACC/AHA Task Force on Clinical Practice Guidelines[3] (Table 1, Recommendations Table, Table 2).