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WITNESS PROTECTION FOR AUTHORS OF CONTROVERSIAL GUIDELINES

Reply to the Editor:

For many years, Thoralf M. Sundt has shared his concerns about the premature prophylactic replacement of the aortic root and ascending aorta in patients with a bicuspid aortic valve. In a recent letter to the Editor,¹ he shares his perspective on the article by Saeyeldin and colleagues (including Elefteriades),² which presents their latest thoughts. Elefteriades and colleagues³ have long been at the forefront of enhancing the understanding of the natural history of aortic aneurysm and dissection. Their efforts have included a nuanced examination of patients with bicuspid aortic valves, published in 2007, which suggested that the risk of negative events dramatically increases when aneurysms reach a diameter of 5 cm or more.⁴ Over the next decade, this analysis and others helped shift the needle toward intervention at a lower diameter-based threshold.⁵ This shift was controversial, and mediation was needed for conflicting practice guidelines.⁶

In their most recent analysis, Saeyeldin and colleagues² again dive headlong into this continuing controversy. Should the diameter-based threshold for surgical intervention in patients with bicuspid aortic valves be lowered even further, to 4 cm? Although the authors make a convincing argument for a lower threshold,² Sundt points out weaknesses in their decision-making algorithm and expresses concern that reducing the threshold of repair to a new low could ensnare those with "innocent" aortas (ie, those that would not dare dissect or rupture) as unnecessary surgical victims.¹

At the heart of the matter is the balance between maintaining an adequately functioning bicuspid aortic valve for as long as possible and avoiding a life-threatening aortic dissection. The facts remain that elective aortic root replacement in patients with a bicuspid aortic valve is typically a low-risk operation that usually entails little further intervention. In contrast, acute ascending aortic dissection is a life-threatening event, repairing it is a high-risk operation, and if the residual dissection is extensive, further aortic intervention is often necessary.

Dr Coselli participates in clinical research trials conducted by Edwards Lifesciences and Bolton Medical; consults for, receives royalties and a departmental educational grant from, and participates in clinical trials for Terumo Aortic; and consults and participates in clinical trials for Medtronic Inc and W.L. Gore & Associates.

Factors to include in this decision include meeting the needs of an informed patient relative to the expected outcome, based on the demonstrated skill of an experienced surgeon.

Much like bioprosthetic valves, which are typically reserved for older patients because of the valves' limited durability but are sometimes used in younger patients with a strong preference for them, there should be some flexibility in the 4- to 5-cm diameter threshold. Ultimately, a balance is struck for clinicians and patients because the actual risk for an individual is impossible to determine; one could argue that patient discomfort and surgical experience may be worth a centimeter of leeway.

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