

The authors reported no conflicts of interest.

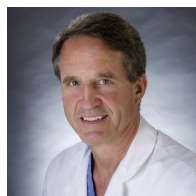
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- Hiratzka LF, Bakris GL, Beckman JA, Bersin RM, Carr VF, Casey DE Jr, et al. 2010 ACCF/AHA/AATS/ACR/ASA/SCA/SCAI/SIR/STS/SVM guidelines for the diagnosis and management of patients with Thoracic Aortic Disease: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines, American Association for Thoracic Surgery, American College of Radiology, American Stroke Association, Society of Cardiovascular Anesthesiologists, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of Thoracic Surgeons, and Society for Vascular Medicine. *Circulation*. 2010;121:e266-369.
- Acharya MJ, Jahangiri M. Moderate aortic dilatation should not be ignored at primarily non-aortic cardiac surgery. *J Thorac Cardiovasc Surg*. 2021;161:e151-2.
- Paruchuri V, Salhab KF, Kuzmik G, Gubernikoff G, Fang H, Rizzo JA, et al. Aortic size distribution in the general population: explaining the size paradox in aortic dissection. *Cardiology*. 2015;131:265-72.

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### REPLY: SHOULD SMALL AORTAS BE REPLACED?

#### Reply to the Editor:

Acharya and Jahangiri<sup>1</sup> write to support the inferences from Idrees and colleagues,<sup>2</sup> and perhaps to politely disagree with the points I tried to make in my Commentary on that manuscript.<sup>3</sup> A variety of arguments have been made over many years in favor of replacing aortas below the guideline threshold of 4.5 cm. One of the most popular has been the height-indexing approach cited by the authors of this letter that was originally proposed by Svensson and Khitin,<sup>4</sup> and on which Acharya has also published.<sup>5</sup> I will only mention that height-indexing has not achieved a determinative role in the guidelines in the 18 years that have passed since it was proposed.

It is also important to remind readers that Idrees and colleagues analyzed patients in whom the enlarged aorta was a secondary or incidental feature and who had another clear indication for open heart surgery. I suggest that drive-by resection of aortas <4.5 cm clears a lower bar than aortic resection done as the primary indication for operation. I will also remind readers that Idrees and colleagues justified operating outside guidelines based entirely on overall outstanding results, the great majority of which were in patients done within guidelines. Quoting myself, “While it indirectly implies that risk is low, the benefit side of the

equation can only be addressed by comparing long-term outcomes in the <4.5 cm subgroup to similar patients untreated.”<sup>3</sup>

Finally, the authors argue for “89-fold increased risk of dissection” in aortas that are 4.0 to 4.5 cm, citing Paruchuri and colleagues.<sup>6</sup> In that rather curious manuscript (“Ours is not a typical study”) the authors combine 2 completely unrelated clinical series and “apply a commonsense statistical approach.” Without belaboring the commonsense statistics, suffice it to say that the 89-fold increase applies to a ratio of relative risks, not an absolute risk. Furthermore, they conclude “To recommend surgery at smaller sizes [<4.5 cm] would dangerously—and unnecessarily—expose individuals with minimal risk of dissection to the small but real risk of open-heart surgery. Vigilance should be augmented from the point that an aorta reaches 4.5 cm, with periodic imaging and risk factor modification (blood pressure control).”

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### References

- Acharya M, Jahangiri M. Moderate aortic dilatation should not be ignored at primarily non-aortic cardiac surgery. *J Thorac Cardiovasc Surg*. 2021;161:e151-2.
- Idrees JJ, Roselli EE, Blackstone EH, Lowry AM, Soltz EG, Johnston DR, et al. Risk of adding prophylactic aorta replacement to a cardiac operation. *J Thorac Cardiovasc Surg*. 2020;159:1669-78.
- Smith CR. Commentary: More magic from Cleveland. *J Thorac Cardiovasc Surg*. 2020;159:1679-80.
- Svensson LG, Khitin L. Aortic cross-sectional area/height ratio and timing of aortic surgery in asymptomatic patients with Marfan syndrome. *J Thorac Cardiovasc Surg*. 2002;123:360-1.
- Acharya MN, Youssefi P, Soppa G, Valencia O, Nowell J, Kanagasabay R, et al. Analysis of aortic area/height ratio in patients with thoracic aortic aneurysm and type A dissection. *Eur J Cardiothorac Surg*. 2018;54:696-701.
- Paruchuri V, Salhab KF, Kuzmik G, Gubernikoff G, Fang H, Rizzo JA, et al. Aortic size distribution in the general population: explaining the size paradox in aortic dissection. *Cardiology*. 2015;131:265-72.

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