The author reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

REPLY: WRAPPING PEOPLE BETWEEN FRAILTY AND VITALITY Reply to the Editor:

In their letter to the editor, Madjarov and colleagues¹ comment on the submission from Kim and colleagues² regarding aortic wrapping. The comments from Madjarov colleagues¹ were on aortic wrapping in general whereas the paper from Kim and colleagues² compared aortic wrapping with replacement in the setting of concurrent aortic valve replacement. There will be different dispositions to intervene on the aorta between these 2 populations. That aside, the former presented 3 discussion points to the editor. One was that wrapping the ascending aorta alone leads to turbulence at the transition zone, from wrapped to unwrapped aorta, that is responsible for progressive dilation of the proximal aortic arch. The letter suggests that to prevent this, the proximal aortic arch should be included in the wrap, and they describe a Zone 1 extension of the wrap. Although reasonable, the solution is akin to kicking the can down the road by displacing the transition zone to Zone 2 of the arch, where dilation is no less concerning. Unless the entire aorta were wrapped, a transition zone cannot be avoided.

The second point addressed patient selection criteria, particularly at what diameter intervention should be considered. The patients in the study by Kim and colleagues² had an ascending aorta diameter greater than 40 mm and concurrent need for aortic valve intervention. This is a reasonable position, but to whom aortic replacement should be offered is a complex decision using a particular aortic diameter upon which to begin discussions with the patient. There is nothing magical about going from 54 to 55 mm or 44 to 45 mm (the current recommended size thresholds for aortic replacement in isolated aortic or concomitant aortic valve surgery, respectively, in trileaflet aortic valve, nonsyndromic aortopathy patients). For emphasis, a millimeter is

the width of a character in the current font of an article in the print version of the *Journal*. The assertion that “the cardiac surgeon should decide individually what is best for the patient” is not consistent with today’s standards. While a practitioner has the responsibility in some instances to deem a particular intervention inappropriate even if insisted on by a patient, ultimate authority to proceed with a noncontraindicated intervention rests with the patient, and this is related to the next point in the letter to the editor.

The third point was that wrapping was a good alternative to replacement of the aorta. This is a subjective opinion with no evidence of superiority or equipoise. The best we can say, as shown in the study by Hiratzka and colleagues,³ is that wrapping can be done with inferior results to replacement and, some might say, without evidence, that wrapping is better than leaving the aorta unmolested. Justification for this position is proposed in the population between those patients sufficiently robust to tolerate the gold-standard aortic replacement and those deemed too frail for an open operation, where a “lesser” intervention is thought acceptable. Who are these patients? If the wrapping is performed on cardiopulmonary bypass, then it is no less invasive or inflammatory to the patient. Off cardiopulmonary bypass, the lesser insult to the patient is appreciated, but again we must give consideration to the other factors that imply patient frailty. Will these other factors compete for the patient’s demise to make the aortic intervention unnecessary, especially if the aorta is less than 55 mm when the yearly risk of rupture or dissection is about 3%?⁴ This information needs to be relayed to the patient for them to include in their deliberation about how they want to proceed.

John Bozinovski, MD, MSc

Division of Cardiac Surgery

The Ohio State University Wexner Medical Center

Columbus, Ohio

References

1. Madjarov JM, Katz MG, Fazal S, Madzharov S. Proximal aortic arch re-dilatation after external wrapping. *J Thorac Cardiovasc Surg Tech*. 2021;9:30-1.
2. Kim HH, Lee S, Lee SH, Youn YN, Yoo KJ, Joo HC. The long-term fate of ascending aorta aneurysm after wrapping versus replacement. *J Thorac Cardiovasc Surg*. January 19, 2021 [Epub ahead of print].
3. Hiratzka LF, Bakris GL, Beckman JA, Bersin RM, Carr VF, Casey DE, 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. *J Am Coll Cardiol*. 2010;55:e27-129.
4. Elefteriades JA. Natural history of thoracic aortic aneurysms: indications for surgery, and surgical versus nonsurgical risks. *Ann Thorac Surg*. 2002;74:S1877-80.

<https://doi.org/10.1016/j.xjtc.2021.06.041>