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REPLY FROM AUTHORS: MAIN FACTOR IN DISTAL AORTA DILATATION AFTER WRAPPING: PROCEDURE RATHER THAN MATERIAL Reply to the Editor:

We thank Van Hoof and colleagues¹ for their interesting review and comments. We partially agree with the benefit of soft and macroporous material for late outcomes after wrapping. But we do not entirely agree that it is the difference in materials that makes the difference in outcomes for distal aorta complications. Van Hoof and colleagues¹ suggest that if procedures of wrapping and replacement are performed with rigid material, incidence of distal aorta dilatation should be similar. But our study showed that incidence of distal aorta dilatation in the wrapping group was significantly higher than that in the replacement group, although both groups used rigid material grafts.² Our results are consistent with those from Plonek and colleagues.^{3,4} They demonstrated that lesions of the proximal arch had more wall-stress than other lesions and wall-stress of the proximal arch was maintained after wrapping.^{3,4} We believe it is more reasonable that the complication of distal aorta dilatation might be associated with the procedure of wrapping rather than the materials used.

Furthermore, we agree with emphasizing importance of size matching the graft with the native aorta. The material used in personalised external aortic root support was carefully constructed with 3-dimensional printing to exactly match the size of the native aorta, whereas the graft material in the wrapped patients in our study had off-the-shelf grafts modified during surgery to approximate the size of the remaining aorta. Relative size discrepancy was inevitable.

Complications regarding distal aorta dilatation are associated with the mechanical limitations that are inevitable in the wrapping procedure, such as size discrepancy, flow turbulence, and residual diseased aorta, rather than the type of wrapping material.

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studied by Kim and colleagues. Finally, the moderately dilated aorta of a young patient with Marfan syndrome may react differently to a polymer material than the aneurysm of a patient undergoing valve replacement.

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