The author reported no conflicts of interest.

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patients identified reports of aortic wall degeneration, aortic dissection, and wrapping dislocation.³ Recently, Kim and colleagues⁴ have demonstrated a late, significant increase in proximal aortic arch diameter when compared with standard aortic replacement. Clarity on these issues is required before the proposal to offer such operations to patients with Marfan syndrome or only moderately dilated aortas can be safely considered. Publication of Madjarov and colleagues' data would be a critical step toward offering the "sufficient evidence" of their technique.

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REPLY FROM AUTHOR: EXTERNAL WRAPPING PROCEDURE FOR TYPE A INTRAMURAL HEMATOMA

Reply to the Editor:

We thank Drs Madjarov and Katz for their thoughtful comments regarding the external wrapping procedure.¹ In addition, we appreciate that they acknowledged the pioneering work of the late Dr Robicsek,² and we are impressed by that they have already accumulated more than 400 cases over the past 50 years, especially in comparison with our small series with limited follow-up durations.³

The pathological conditions of their patients ranged from aortic dilatation or aortic aneurysm to Marfan syndrome.

They recommend extensive wrapping of the ascending aorta from the aortic annulus to proximal to the left common carotid artery. They describe complete dissection of both coronary ostia. However, in our experience, dissection up to the orifice of the left coronary artery is technically difficult and dangerous in cases of type A acute aortic dissection. Therefore, we usually wrap the ascending aorta from the Valsalva sinus without aggressive dissection up to the coronary ostium. Because postoperative computed tomography in our series demonstrated complete remodeling of intramural hematoma at 2 years after surgery, our dissection of the aorta appears sufficient.

Their surgical indication includes chronic type A aortic dissection. However, in the chronic phase of aortic dissection, there is a large amount of adhesion to the surrounding tissue. Previously, we tried to perform external wrapping in 2 patients with chronic aortic dissection. Because of tight adhesion, especially behind the ascending aorta, we finally performed conventional aortic replacement. Also, the expected mortality is not as high as that seen in acute aortic dissection because most cases are elective. Thus, we are worried about the application of external wrapping to chronic aortic dissection. Furthermore, the application in cases involving Marfan syndrome or other connective tissue disorders of the external wrapping is questionable. Yamamoto and colleagues⁴ reported ischemic necrosis of the aortic wall after external wrapping in a patient with Loeys-Dietz syndrome. Therefore, my opinion is that, using the currently available grafts or devices, graft replacement is still the gold standard for patients with connective tissue disorders.

I completely agree with the opinion that the external wrapping procedure is a feasible alternative to conventional graft replacement in high-risk or elderly patients. As Madjarov and Katz¹ suggest, the external wrapping technique must be performed properly. The separation line between the aorta and the pulmonary artery is an important technical issue in patients with type A intramural hematoma. Great care must be taken during dissection to avoid tearing the aorta. Although a prospective randomized study and long-term follow-up data are required to justify external wrapping generally, external wrapping serves to introduce this technique as a feasible alternative to conventional surgery in patients with a high degree of surgical risk.

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