with thoracoabdominal aortic aneurysms. TEVAR has been broadly applied to thoracic aortic diseases, but it is more easily applied at the aorta without major branches. TEVAR for thoracoabdominal aortic aneurysm requires additional procedures for the branches. In fact, 4 such cases were treated with TEVAR, and all 3 survivors had chimney/snorkel stent in abdominal branch vessels. Although this kind of high-tech strategy may be a future direction of aortic repair, the long-term results with the new technologies are still obscure, and open conversion from this complicated approach is often difficult.

TEVAR is undoubtedly an excellent procedure to save the patients with DTAR; however, we should not cling to a binary choice and should not make a choice only between

TEVAR and open surgery. In my opinion, these 2 major strategies should be combined properly for patients.

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Commentary: The moment of truth: Longer-term follow-up after endovascular treatment of descending thoracic aortic rupture

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Routinely in practice, there is a patient who asks, “Do you still really have to cut me open to fix this?” And the affirmative answer to this question is often couched in questions of the durability of the minimally invasive option. The one place in cardiac surgery that we have moved toward the minimally invasive option being the standard of care is repair of the descending thoracic aorta, especially in times of rupture. The data are quite clear that short-term outcomes are better when these patients are approached with thoracic endovascular aortic repair (TEVAR) instead of open repair.¹ However, the questions that still remain unanswered are

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CENTRAL MESSAGE

Patients undergoing TEVAR for descending thoracic aortic rupture have a 70% 5-year survival rate as compared with 44% in patients undergoing open surgical repair.

whether TEVAR is durable and what is the price to the patient with aortic reintervention.

Ogawa and colleagues² must be congratulated in asking the important question of what are the mid-term outcomes of patients who underwent TEVAR for aortic rupture. This study does not include patients with traumatic rupture, which does carry a sicker patient cohort; however, it does limit the generalizability of the paper. The authors have a meaningful average follow-up of 828 ± 1258 days for

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patients undergoing TEVAR. Aortic reintervention was fairly low, but in those patients who required aortic reintervention, the price was quite steep. Eighteen percent (14/79) of patients undergoing TEVAR had aortic reinterventions. Four of these 14 patients required open aortic intervention, of whom 2 died. In all 14 patients, there was a 50% mortality even after reintervention. Days to reintervention ranged from 0 days to 1351 days, highlighting the need for close follow-up in these patients.

The paper presents a 5-year survival of 70% in patients undergoing TEVAR as compared with 44% after open surgical repair. This is a better outcome than most would predict and is not easily explained. Why does TEVAR offer a long-term survival benefit? Is it secondary to the closer follow-up that most patients with stents receive as

compared with those who undergo open surgery? Do the increased complications from open surgery have a longer-lasting effect than we could have imagined? Unfortunately, as the authors point out, this paper is not designed or powered to answer this question, but the data are still quite intriguing.

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