endovascular repair, but one should at least entertain this thought. Finally, the outcomes of contemporary open repair of ATBAD are improving.⁶ Today, we have good news, bad news, and the remaining puzzle of determining the long-term scenario after endovascular repair of ATBAD. Remember that it's not how you drive, but how you arrive—these typically young patients need repairs that will be stable for a lifetime.

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Commentary: Are the early benefits of thoracic endovascular aortic repair in complicated type B dissection durable through time?

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The introduction of thoracic endovascular aortic repair (TEVAR) procedures have revolutionized the treatment of complicated type B aortic dissection. Perioperative mortality rates have declined from 30% to 50% for a classic open repair to 10% in the TEVAR era.¹ Although the benefits of TEVAR to decrease early morbidity and mortality are indisputable, data on late outcomes remain limited. Bavaria and colleagues² report good clinical outcomes at 5 years in a multicenter nonrandomized trial of 50 patients with acute

CENTRAL MESSAGE

Long-term outcomes of TEVAR for complicated type B are promising but require more complete follow-up. Long-term clinical and imaging assessments are mandatory to identify device-related complications.

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type B aortic dissection with malperfusion treated with the Valiant Captivia device (Medtronic, Minneapolis, Minn).

The initial objective of TEVAR in treating complicated type B aortic dissection is to rapidly reperfuse the true aortic lumen by covering the primary intimal tear. This objective was feasible in all 50 patients of the present study, confirming the high success rate of TEVAR in alleviating the dynamic malperfusion associated to complicated type B dissection. Late TEVAR goals after treatment of acute

type B dissection may be summarized in 3 objectives. First, TEVAR should enhance aortic remodeling by sustaining true lumen perfusion and promoting false lumen thrombosis hence avoiding late aneurysmal degeneration. In the present trial, at 5 years, 94% of patients had a stable or increased true lumen diameter while the false lumen was completely thrombosed in the stented aortic segment in 89% of cases with no increase in diameter in 79% of cases. Secondly, TEVAR related complications with need for secondary procedures should be minimal. Bavaria and colleagues² report an 86% freedom from secondary endovascular procedures at 5 years. Only one patient required an open conversion due to persistent type Ia endoleak following additional TEVAR placement. Finally, minimal late dissection related deaths should be observed with TEVAR. At 5 years, 83% of patients were free of dissection-related mortality. More specifically, of the 7 dissection-related deaths, 4 were related to the indexed TEVAR procedure.

At first glance, these results are encouraging for late outcomes of TEVAR for the treatment of acute type B dissection. However significant limitations have to be addressed especially in terms of the completeness of the clinical and imaging follow-up. Of the 50 patients initially treated, 15 patients died, 2 patients voluntarily withdrew, and 10 patients were lost to follow-up. Of these residual 23 patients, only 18 patients were available for clinical and imaging assessments at 5 years, limiting generalization of the results to the whole cohort. Furthermore, current

TEVAR technologies are designed to adapt to all pathologies of the descending aorta without considering the specificities of each diseases such as the friability of the distal arch landing zone and the tapering of the distal true lumen in an acute dissection setting. Although low rates are reported in the present trial, retrograde type A dissection, late type Ia endoleak, or stent-graft new entry tear remain a concern with the current commercial devices such as the Valiant Captivia device owing to the presence of proximal bare springs and high radial forces.^{3,4}

Bavaria and colleagues² have to be congratulated for their efforts to better characterize the late outcomes of TEVAR in a difficult population with acute dissection. Although results are promising, longer and more complete follow-up are required to validate these outcomes. Hence, thorough long-term clinical and imaging assessments are mandatory to identify late device-related complications.

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