the mean relative to us, this being determined by principle, that is, as the prudent man would determine it.”

In the same direction, acute type B AD is a detrimental disease with an unpredictable way to rapidly evolve where “complicated” and “uncomplicated” are very dangerous concepts, and “virtue” should encourage managing it with caution using a tailored patient approach.

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Commentary: Sometimes an old dogma needs a new stent

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Traditional teaching dictates uncomplicated Stanford type B aortic dissection (TBAD) is best treated with optimal medical therapy (OMT). Surgery, the dictum holds, is reserved for patients at risk for catastrophic sequelae of their dissection. This recommendation was driven by the high morbidity related to open repair of the thoracic aorta. Taking the most ill patients to surgery resulted in in-house mortality up to 30% for patients undergoing surgery versus around 9.0% for those undergoing stenting or medical therapy.^{1,2} Patients with uncomplicated type B dissections were typically treated medically and surveyed. Surgery was used if the descending aorta showed evidence of aneurysmal or false lumen enlargement.

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CENTRAL MESSAGE

At one time reserved as a less morbid treatment for complicated type B dissection, TEVAR may play a role in uncomplicated type B disease.

Over the past 2 decades, endovascular stenting established efficacy in the treatment of aortic disease, including TBAD. Thoracic endovascular aortic repair (TEVAR) first demonstrated clinical utility in the treatment of complicated TBAD.³ The INSTEAD (Investigation of Stent Grafts in Aortic Dissection Trial) study compared OMT (n = 68) with TEVAR (n = 72) in patients with uncomplicated TBAD.⁴ The survival benefit of stenting was not obvious until 5 years following presentation.⁴ In this edition of *the Journal*, Xiang and colleagues⁵ provide a retrospective review of a large cohort that further supports the rationale for endovascular treatment of TBAD. Their study

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corroborates earlier work, with parallel survival between groups, which diverge after about 2 years. Aortic remodeling with thrombosis of the false lumen has been postulated to be a benefit of the use of TEVAR.⁶ The data presented by Xiang and colleagues challenge this hypothesis, as false lumen patency was similar among TEVAR and OMT groups.

The effectiveness of medical therapy to control heart rate and blood pressure is not well quantified. It seems likely that a subset of these patients has refractory hypertension. In their analysis of the International Registry of Acute Aortic Dissection database, Trimarchi and colleagues⁷ demonstrated a greater risk of mortality in patients with difficult-to-treat hypertension, identified by those requiring >3 antihypertensive medications. Morphology, such as aortic diameter >4 cm, has also been shown to be a predictor of conversion to interventional therapy.⁶ In the present study, the average aortic diameter in both groups was much smaller (around 2.7-2.8 cm).

The use of TEVAR must be balanced with the increased risk of spinal cord ischemic (SCI) events. Xiang and colleagues report a low rate of spinal complications. DeSart and colleagues⁸ described SCI occurring in 57 (9.4%) of their cohort of 607 patients undergoing TEVAR. Of those with SCI, only 38% experienced neurologic recovery to baseline. Moreover, survival after TEVAR was markedly affected by functional impairment due to SCI, as only 25% of patients with SCI who experienced no improvement survived 1 year after TEVAR, whereas 92% who improved had.

The optimal therapy for TBAD likely lies in understanding the individual patient–disease milieu. Factors such as dissection morphology and response to antihypertensive medication should be taken into account. Although less morbid than older procedures, TEVAR is not without risk. A thoughtful approach will best serve these complicated patients with uncomplicated TBAD.

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