total. In the United Kingdom, approximately 3500 isolated bioprosthetic aortic valve replacements are performed per annum. Assuming 50% of these patients are eligible for the study and all units participate, the study will take more than 4 years to complete.

One of the main difficulties we have encountered in the feasibility phase of this study is recruitment of patients with pure aortic valve disease who do not have any forms of arrhythmia or coronary artery disease, thus already receiving aspirin or warfarin. Ideally, a randomized study is necessary. Unless this is a multicenter international trial, sufficient numbers of patients cannot be recruited. We may then have to rely on antithrombotic therapy in the high-risk groups.

We would like to thank the British Heart Foundation for supporting the feasibility phase of this study.

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Reply to the Editor:

We thank the authors for their comments regarding our recent article discussing the necessity of immediate postoperative anticoagulation in patients with bioprosthetic aortic valves.¹ Although this exact topic has been studied repeatedly over the past decade, there continues to be a lack of consensus, primarily owing to the absence of level 1 evidence. As the authors point out, despite strong evidence to advocate for/against antithrombotic therapy after bioprosthetic aortic valve replacement, guidelines from major international cardiology and cardiac surgery societies continue to recommend antithrombotic therapy for 90 days after bioprosthetic aortic valve replacement.

Although there have been attempts at performing a prospective randomized controlled trial to definitively answer this question and establish a standard of care,^{2,3} these studies have been grossly underpowered, containing no more than 150 patients in each group. Depending on the parameters used to perform a power analysis, a conservative estimate for conducting a randomized controlled trial with an effective power ($\beta > 80\%$) would consist of at least 1500 patients in each group. As the authors describe, conducting such a study would require enrollment from multiple high-volume centers.

The controversy and need for level 1 evidence regarding this topic are illustrated by the variability in antithrombotic therapy regimens, which has been documented in the literature (primarily in the United Kingdom).⁴ Anecdotal, in the United States, we know of institutions and surgeons that routinely anticoagulate with intravenous heparin followed by warfarin sodium and those that provide no anticoagulation whatsoever. These varying practices and unclear data should provide incentive to funding agencies to further study this question. On one hand, we may be placing patients at a high risk of major bleeding events and on the other hand, we may not

be adequately protecting patients from the risk of embolism. In the meantime, however, we believe it is important that we use the best available evidence, which is to avoid routine anticoagulation except in high-risk patients.¹

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SURGICAL VERSUS ENDOVASCULAR TREATMENT FOR TYPE B AORTIC DISSECTIONS

Supplemental material is available online.

To the Editor:

We read with great interest the manuscript by Xu and associates,¹ in which they presented their early and midterm results of endovascular repair for the treatment of type B aortic dissections.

Although the Stanford classification is frequently used in the current era, the DeBakey classification seems more

applicable when considering thoracic endovascular aortic repair (TEVAR) for dissections.² DeBakey type III dissections are divided into 2 groups: type IIIa, in which the dissection is confined to the supradiaphragmatic descending aorta, and type IIIb, in which it extends beyond the diaphragm. Definition is important from the point of achieving false lumen-free treatment or only aneurysm exclusion with TEVAR. According to our modest experience, we³ obtained “cure” with TEVAR in patients with type IIIa dissections by coverage of the proximal tear and complete reattachment of the intima and media levels.²

Endovascular treatment is performed to exclude the aneurysm in type IIIb dissections.^{2,4} However, patency of the false lumen is a major prognostic factor in the mid to long run in patients with type IIIb aortic dissections both after open repair⁵ and after TEVAR.^{2,4} After TEVAR, the proximal false lumen does not always thrombose and blood flow may continue outside the stent graft.² This may increase the size of the aneurysm, lead to a new aneurysm formation at the excluded segment of the aorta, or even lead to collapse of the stent graft system.² The postoperative course marked by such a complication in 1 of our patients (Figure E1), who was further treated with TEVAR.

Even if the proximal false lumen completely thromboses, it is still under the stress of systemic blood pressure. In contrast to the theory that thick thrombus protects from rupture, intra-aortic thrombus diminishes aortic wall nourishment, and ruptures frequently occur in the presence of aortic thrombus.

In brief, TEVAR fails to completely compress the false lumen in chronic type IIIb dissections either because of high pressure inside the false lumen or because it is intended not to, since some visceral arteries may originate from this lumen. The issue is different during surgery or perioperative hybrid therapy. Surgical treatment mediates

replacement of the dilated segment of aorta. Distal anastomosis may provide perfusion of only the true lumen or both lumina.⁵ And TEVAR during surgical treatment differs from conventional deployment, in which stent grafts are delivered and expanded into a pressureless aorta, a technique that has better success rates on follow-up.⁴

Once again, we congratulate the authors for their very valuable contribution. We believe surgical treatment still seems the valid option for the treatment of chronic type B dissections with low complication rates in experienced centers in the current era.⁵

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DECISION MAKING IN ISCHEMIC CARDIOMYOPATHY: IS THE CLEVELAND CLINIC MODEL VALID?

To the Editor:

Clinically significant variables are required before any statistical model can provide useful decision making during surgical management of ischemic cardiomyopathy. Models would otherwise be created with an insufficient database, so that statistically validated results might yield valueless clinical conclusions that might worsen the development of congestive heart failure (CHF) symptoms and fatal ventricular arrhythmias after their application to the enormous population with CHF.

The recent Cleveland Clinic Foundation (CCF) report¹ concludes that coronary artery bypass grafting (CABG) alone or in combination with surgical ventricular restoration (SVR) provides similar long-term results to the recent National Institutes of Health Surgical Treatment of Ischemic Heart Failure (STICH) trial that evaluated quality-of-life outcome, rehospitalization rate, and mortality after surgical management of ischemic cardiomyopathy.² Their findings establish CABG therapy alone as a sufficient treatment, fulfill current angioplasty revascularization goals, diminish cardiologic interest in SVR, and limit expansion of the surgeon's interest in learning a new procedure for CHF management.

The innovative statistical model hypothesis of no outcome difference between CABG versus CABG with SVR becomes invalid if the ischemic cardiomyopathy clinical database does not show increased left ventricular end-systolic volume index (LVESVI) rather than reduced systolic ejection fraction³ as the indicator of heart failure. The original STICH trial entry criteria required a preoperative LVESVI of greater than 60 mL/m², as measured by means of cardiac magnetic resonance imaging or single photon emission computed tomography

FIGURE E1. Complicated stent graft treatment of chronic type IIIb aortic dissection.