In summary, we emphasize the significance of proper surgical technique as an extremely important factor in both neurologic and cognitive outcomes after cardiac surgery. We believe that in future study designs it is paramount to use a single standardized surgical technique or, if multiple techniques are used, to stress the differences among them to collect the objective data necessary for forming proper conclusions and avoiding bias. We congratulate Chaudhuri and colleagues¹ on their useful and elegantly conducted research.

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Reply to the Editor:

We thank Borojevic and colleagues for their interest in our article and for

their letter. They quite rightly point out the importance of surgical technique, in particular standardization of that technique, in any trial that looks at neurologic outcomes after cardiac surgery. We are well aware of the evidence that shows that a single-crossclamp technique is superior to multiple cross-clamping and other manipulations of the aorta in terms both of high-intensity transient signals on transcranial Doppler ultrasonography and of neurologic outcome.¹ This was further demonstrated in a meta-analysis of off-pump coronary artery bypass grafting with and without aortic manipulation.²

We can reassure Borojevic and colleagues that all of our surgeons who took part in the trial used a uniform technique with respect to aortic cross-clamping (all used a single-crossclamp technique), manipulation of the aorta, and mechanical deairing of the cardiac chambers. This was also true across both sites of the trial, because only surgeons who were already involved in the trial at the primary site (The Alfred Hospital) were involved at the secondary site (The Epworth).

We did report gross neurologic outcomes in our study (cerebrovascular accident), which were included in the Appendix Table 2, although we did not collect or report data on delirium. No patient in our study cohort sustained a transient ischemic attack. We thank Borojevic and colleagues for their comments.

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SHOULD IATROGENIC TYPE A AORTIC DISSECTION IN PATIENTS WITH PREVIOUS CARDIAC SURGERY BE MANAGED CONSERVATIVELY? To the Editor:

Should iatrogenic type A aortic dissection (AD) in patients with previous cardiac surgery (CS) be managed conservatively? We read with interest the report by Timek and colleagues¹ presenting the clinical course of a 55-year-old patient with a history of coronary artery bypass grafting and coronary catheter-induced acute type A AD. This hemodynamically stable patient was treated conservatively, and the vascular injury healed uneventfully.

The decision as to whether to operate on AD in a patient with previous CS can be difficult. Recent guidelines are inconclusive, and mandatory surgical treatment has recently been questioned.² Patients with type A AD and a history of CS were found to be twice as likely to be managed medically as those with spontaneous AD, perhaps because of a perceived excessive risk of surgery.³ The argument in favor of conservative management in this case was based on the patient's clinical stability, morbid obesity, previous sternotomy, and mechanism of dissection.¹ In fact, however, rupture and instability are rare because of postcardiotomy scarring and protective adhesions.⁴ Contrary to expectation, body mass index, diabetes, sex, type of primary surgery, and acuity of dissection, among others, were not identified as significant determinants of operative outcome in a series of patients with AD after previous CS.⁴

Although the term "iatrogenic AD" is frequently used regardless of the mechanism of aortic injury, we believe that catheter-induced aortic injury must be clearly distinguished from other etiologies. As Timek and colleagues¹

indicated, the intimal injury caused by the tip of the guiding catheter carries a high likelihood of being directed retrograde, and thus the flap can potentially close and seal under antegrade aortic flow pressure. Although the dissection may progress antegrade, a report of iatrogenic AD after cardiac catheterization found that most of the dissections were limited to the right coronary sinus, and there was a favorable outcome with conservative treatment.⁵ In support of their management decision, Timek and colleagues¹ cited an observational series of 10 medically treated patients with AD diagnosed after an interval as long as 12 years (mean 52.6 months) after initial cardiac surgery (half of them for aortic pathologies).² These patients simply represent a surviving selection of an unknown number of affected cases. In the absence of a denominator, this is insufficient evidence to define retrospectively a “paradigm change” in the management of an acute (potentially life-threatening) vascular complication. Late survivors of AD with aortic wall pathology and open false lumen must be distinguished from those with catheter-induced local aortic injury. Those patients with previous CS who are in hemodynamically stable condition may expect an excellent outcome with nonoperative management.^{1,5}

The decision for surgical or nonsurgical therapy remains challenging in patients with other causes of dissection. The 10-year survival with surgical treatment was reported as 68%, which was not significantly different from that for spontaneous AD.⁴ In the absence of sufficient data to estimate the prognosis of medically treated AD in patients with previous CS, the decision will remain difficult, particularly in the case of relatively young patients.

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Reply to the Editor:

I appreciate the thought-provoking arguments that our case report has generated. Stanger and Pepper present a balanced discussion of the controversial subject of surgical intervention in patients with acute type A aortic dissection (TAAD) with previous cardiac surgery. I agree that patients with previous cardiac surgery and spontaneous TAAD should be treated surgically in the absence of prohibitive comorbidities. These patients do have significantly higher operative mortality, however, as illustrated by a study published since the acceptance of our case report. Klodell and colleagues¹ reported a disparity in hospital mortality of 9.7% versus 38.7% between primary sternotomy and re sternotomy among patients treated for acute TAAD in a propensity score-matched analysis. Interestingly, patients with previous surgery had a significantly higher incidence of aortic rupture, contained in most cases, suggesting that adhesions from previous surgical procedure may not provide “buttressing” after all against this catastrophic complication. Medical therapy

for TAAD has been associated with 58% mortality in a large registry experience,² and as such outcomes of surgical therapy in re sternotomy TAAD appear favorable, although patients chosen for medical therapy usually have a prohibitive risk profile. The patient described in our report was a young woman with stable hemodynamics and a catheter-induced TAAD. We agree that this represents an important distinction, because the mechanism of aortic injury in this setting may be more prone to healing than a spontaneous TAAD and the underlying aortic pathology may be less significant; however, clinical vigilance, close observation, serial imaging and echocardiographic assessment, and a low threshold for operative intervention remain paramount. Because scant data from the literature are available to guide the treatment of TAAD in patients with previous cardiac surgery, clinical judgment and local experience will most likely continue to determine the mode of therapy.

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REMOTE ISCHEMIC PRECONDITIONING IN CHILDREN WITH CYANOTIC HEART DISEASE: LOST IN TRANSLATION?

To the Editor:

I read with great interest a recent report of Pavione and colleagues¹ that