Letters to the Editor

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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http://dx.doi.org/10.1016/j.jtcvs.2012.09.089

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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http://dx.doi.org/10.1016/j.jtcvs.2012.11.024

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.4 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
Letters to the Editor

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http://dx.doi.org/10.1016/
j.jtcvs.2012.09.088

Reply to the Editor:
I appreciate the thought-provoking arguments that our case report has gen-
erated. Stanger and Pepper present a balanced discussion of the controversial
subject of surgical intervention in patients with acute type A aortic dissec-
tion (TAAD) with previous cardiac surgery. I agree that patients with previ-
sous cardiac surgery and spontaneous TAAD should be treated surgically in
the absence of prohibitive comorbidities. These patients do have signific-
antly higher operative mortality, however, as illustrated by a study pub-
lished since the acceptance of our case report. Klodell and colleagues reported
a disparity in hospital mortality of 9.7% versus 38.7% between primary sternom-
yony and resternotomy 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, sug-
uggesting that adhesions from previous surgical procedure may not provide
“buttressing” after all against this cata-

crophic complication. Medical therapy

for TAAD has been associated with
58% mortality in a large registry expe-
rience, and as such outcomes of surgical
therapy in resternotomy TAAD appear
favorable, although patients
chosed for medical therapy usually
have a prohibitive risk profile. The pa-
tient described in our report was a young
woman with stable hemodynamics and
a cather-induced TAAD. We agree
that this represents an important distinc-
tion, 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, clini-
cal vigilance, close observation, serial
imaging and echocardiographic assess-
ment, and a low threshold for operative
intervention remain paramount. Be-
cause scant data from the literature are
available to guide the treatment of
TAAD in patients with previous cardiac
surgery, clinical judgment and local ex-
perience will most likely continue to de-
temine 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 re-
port of Pavione and colleagues that

indicated, the intimal injury caused by
the tip of the guiding catheter carries a
high likelihood of being directed ret-
rograde, and thus the flap can poten-
tially close and seal under antegrade
aortic flow pressure. Although the dissec-
tion may progress antegrade, a report of
iatrogenic AD after cardiac catheter-
tization found that most of the dissec-
tions were limited to the right coronary
sinus, and there was a favorable out-
come with conservative treatment.3 In
support of their management decision,
Timek and colleagues5 cited an observ-
tional series of 10 medically treated
patients with AD diagnosed after an in-
terval 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 surviv-
ing selection of an unknown number of
affected cases. In the absence of a de-
nominator, 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 con-
dition may expect an excellent outcome
with nonoperative management.1,5

The decision for surgical or nonsur-
gical therapy remains challenging in
patients with other causes of dissec-
tion. The 10-year survival with surgical
treatment was reported as 68%, which
was not significantly different from
that for spontaneous AD.4 In the ab-
sence 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.

http://dx.doi.org/10.1016/
j.jtcvs.2012.09.088