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Key Words: aortic dissection, survey, cerebral perfusion, hypothermic circulatory arrest

EDITORIAL COMMENTARY

Nothing worth having comes easy

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On behalf of the Canadian Thoracic Aortic Collaborative (CTAC) investigators, Peterson and colleagues¹ provide a snapshot of the preferences of most Canadian cardiac surgeons on the management of acute type A aortic dissection. In this report, 100 of 122 active cardiac surgeons in Canada (82%) returned a 34-question survey from which the preferences were determined.¹ Discrimination regarding preference appeared when volume and experience were considered. Intuitively, high-volume aortic surgeons (ie, >5 type A dissection cases per year) preferred a more aggressive approach to the aortic root and transverse arch. More experienced surgeons appeared to adopt antegrade cerebral perfusion, warmer nasopharyngeal temperatures (>24°C) during cooling, and axillary cannulation.

Although preferences and attitudes are interesting, these are only stated preferences and do not translate into what was actually done. What was actually done, and the analysis of the associated outcomes, is what is important when determining success of a specific technique or management strategy. Moreover, because type A dissection is technically demanding, what seems to work for 1 may not work for another and, thus, consensus becomes difficult to build.

For these reasons, most of the guidelines and recommendations provided by consensus statements are only that—a recommendation—and backed by little evidence. Even when consensus is obtained, dissemination of the information, whether by oral presentation at regional or national meetings or by publications, takes much time to absorb, if ever, as noted by the authors regarding radiographic surveillance in follow-up.¹

What arterial cannulation to use? How low to cool? How to monitor the brain? How to protect the brain? How much of the aorta to resect? The survey questions posed are pertinent to cardiac surgeons who perform

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Central Message

We should combine efforts to collaborate and design trials that eventually answer questions posed in the CTAC survey.

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repairs of acute type A aortic dissection. Each question is a research project in and of itself, but little level-1 evidence (ie, randomized controlled trials) exists to support or refute a specific technique. This is a reason that little has changed in our technique—aside from the basic principles—with the management of acute type A aortic dissection.

Acute type A aortic dissection is a devastating condition that is associated with significant morbidity and mortality, even if timely intervention is performed. Disconcerting is the fact that the operative mortality has changed little, despite the advancements in cardiovascular surgery, anesthesia, and critical care. Much of this has to do with the timing of presentation, comorbidities, and the underlying severity of the dissection. Should we, as a surgical discipline, have made greater strides? Have we been limited by our inability to perform well-constructed clinical trials that could answer some—if not all—of these questions?

As our population ages, more and more individuals will likely experience acute dissection, so the problem is not going to disappear. Inherent difficulties exist when attempting to study a relatively rare but devastating disease such as acute aortic dissection. Therefore, performing clinical trials seems unlikely for many reasons. Other surgical and interventional specialties have been able to perform well-directed, randomized clinical trials in acute and emergent settings and provide examples of how such barriers can be overcome.^{2,3} At this point, if better outcomes in the management of acute type A aortic dissection are to occur, a concerted and collaborative approach must take place in the cardiovascular surgery community.

Organizers of the CTAC, the International Registry of Acute Dissection, the Registry of Aortic Dissection in China, the Japan Adult Cardiac Surgery Database, the German Registry for Acute Aortic Dissection, the ARCH Project, the Society of Thoracic Surgeons/American Association for Thoracic Surgery, as well as many others

should ultimately combine efforts to collaborate and design trials that will eventually answer the questions posed in the CTAC survey.⁴⁻⁸

There are many challenges in such an effort—most of which relate to coordination, funding, and resources. But a focus should now be in this direction. We, as a specialty, should take on this challenge. After all, nothing worth having comes easy.

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