

prescribed confounded predictors of new persistent opioid usage in our regression model.

We found that despite our previously reported new persistent usage rates of 17.1% (294/1722) after thoracotomy versus 9.4% (117/1243) after VATS ($p < 0.001$) [3], mean opioid prescription size did not differ for patients undergoing thoracotomy versus VATS (580 ± 2582 OME vs 549 ± 790 OME; $p = 0.68$). Adding prescription size in log OME to our multivariable regression for new persistent opioid usage (odds ratio, 0.99; 95% confidence interval, 0.88–1.11; $p = 0.80$) did not affect the odds ratios for the 2 strongest predictors of new persistent usage: adjuvant therapy (odds ratio, 2.19; 95% confidence interval, 1.74–2.75; $p < 0.001$) and thoracotomy (odds ratio, 1.58; 95% confidence interval, 1.24–2.01; $p < 0.001$).

We conclude that size of opioid prescription for those undergoing thoracotomy and VATS did not differ between surgical approach, whereas new persistent usage rates were nearly twice as high after thoracotomy. In addition, adjuvant therapy and thoracotomy remain the 2 strongest predictors of new persistent usage in our population, even after adjusting for total prescription size.

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Kommerell's Diverticulum and Aberrant Subclavian Artery: In Quest of the Optimal Therapy



To the Editor:

We read with great interest the article by Ikeno and colleagues [1] about graft replacement of Kommerell's diverticulum and reconstruction of aberrant subclavian artery (ASA), and we would like to add a few comments.

First, Ikeno and colleagues [1] are to be commended for the presented outcomes with regard to 30-day mortality (0%), transient neurologic deficits, and 5-year and 10-year survival of 85.2% and 75.8%, respectively.

Ikeno and colleagues [1] used three different techniques of open repair and concluded that open surgical therapy provides better long-term outcomes. The surgical approach for the repair of this entity is versatile and should be assessed on an individual case by case basis. We recently operated on a patient with a dissected ASA that originated distal to the left subclavian artery, with no propagation of the dissection in the aorta [2]. ASA has been firmly associated with aortic dissection and sometimes has been incriminated as the origin of the dissection [2]. It is obvious that in such cases of isolated ASA dissection, the in situ reconstruction proposed by Ikeno and colleagues [1] would be quite challenging. Instead, ligation of the dissected vessel along with a carotid-to-subclavian bypass with the aim of partial cardiopulmonary bypass would be the treatment of choice.

Thoracic endovascular aortic repair and other hybrid approaches are useful tools. However, they lack long-term results, and they have limitations because they can be implemented only in patients with suitable arch anatomy (ie, adequate proximal landing zones, exclusion of gothic-shaped arches that may cause a bird's beak configuration). Moreover, these approaches are by definition excluded in patients with dysphagia secondary to complete vascular ring. Additional restrictions on the applicability of endovascular therapy arise from the finding that, after exclusion of Kommerell's diverticulum, the reduction of the sac is variable. Furthermore, as Ikeno and colleagues [1] have reported, aberrant right subclavian artery with Kommerell's diverticulum is not a focal aortic defect but is often associated with aneurysmal disease in the ascending aorta and arch. Therefore, it necessitates a more holistic approach.

There are no specific guidelines for the treatment of Kommerell's diverticulum and ASA, probably because of their low incidence. The ideal approach to ASA and Kommerell's diverticulum is chosen according to the individual anatomy, the patient's comorbidities, and the surgeon's preference. Larger studies comparing open surgical and endovascular strategies for patients with similar aortopathy would provide crucial information and model future guidelines.

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What Are the Criteria of Success After Neonatal Arch Reconstruction in the Long Term?



To the Editor:

I read the article by Gray and colleagues [1] with great interest. As of 2018, coarctation repair with or without arch

reconstruction through either median sternotomy or left thoracotomy has been performed with acceptable rates of mortality in many centers. Therefore, it should not be the topic of discussion nowadays. In my view, more emphasis should be paid on quality of life, which is closely related to both the persistence of hypertension and the status of neurodevelopmental functioning in neonatal patients in the long term.

Gray and colleagues [1] mentioned that all of the aortic segments grow in a symmetric fashion postoperatively. Postrepair aortic arch geometry is one of the important factors dictating the development of persistent hypertension in neonatal patients undergoing aortic arch reconstruction [2]. I wonder how successful Gray and colleagues [1] were in obtaining normal arch geometry and flow dynamics postoperatively. In this respect, magnetic resonance angiography and flow mapping of the aortic segments could have increased the power of the study.

Deep hypothermic circulatory arrest remains a major risk for late neurodevelopmental dysfunction in neonatal patients [3]. Currently, many centers have changed their strategies to normothermic or hypothermic bypass with antegrade cerebral perfusion to avoid deep hypothermic circulatory arrest during aortic arch repair [4]. What was the rationale for not using antegrade cerebral perfusion during repair? Was it just habit? Moreover, Gray and colleagues [1] reported that no child had any significant neurologic deficit or developmental delay at the end of the follow-up. However, they evaluated these patients by routine clinical means only. Without performing more

sophisticated evaluations including late intellectual, cognitive, and psychometric development, is it possible to talk about a successful surgical or neurologic outcome?

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