R.P.W. reports personal fees from AtriCure, Armetheon, and Boehringer Ingelheim, outside the submitted work. All other authors have nothing to disclose with regard to commercial support.

HIGHER-QUALITY EVIDENCE NEEDED BEFORE ABANDONING PROVEN THERAPIES: COMMENT

To the Editor:

We have concerns regarding the recent publication by Murashita and colleagues¹ on a small retrospective cohort of patients undergoing Cox Maze IV ablation and left atrial appendage (LAA) occlusion. The authors found a low rate of stroke (<1%/year) in patients both on (n = 176) and off (n = 57) oral anticoagulants when in sinus rhythm after surgery. On the basis of these findings, the authors suggest that it may be safe to manage patients in sinus rhythm after the Cox Maze IV procedure with antiplatelet agents only.

Our concerns are 2-fold: Overly strong conclusions are drawn from a limited study design and size, and 2 separate interventions are combined, obscuring which procedure may confer risk reduction. Although the authors acknowledge that these results should only be hypothesis generating, their allusion to the safety of oral anticoagulation (OAC) discontinuation postoperatively is unfounded. Their pragmatic cohort compared unbalanced groups without adjusted analysis. Its limited size, with only 4 strokes in the group without OAC, is underpowered and should not be considered proof of noninferiority.

The body of literature for surgical ablation of atrial fibrillation (AF) or LAA occlusion does not support OAC discontinuation. In a recent meta-analysis of randomized controlled trials assessing surgical AF ablation (including the Cox Maze IV),² we found no difference in the risk of stroke after ablation despite high rates of freedom from AF. In fact, ablation did not affect the rate of any major

adverse events. As such, current evidence does not directly or indirectly support OAC discontinuation after ablation.

Likewise, the evidence is far from definitive that LAA occlusion prevents ischemic stroke. In the patient-level meta-analysis of the WATCHMAN trials, ischemic events were higher in the device arm³; WATCHMAN-associated stroke prevention was driven by a decrease in hemorrhagic strokes related to the absence of OAC. Evidence supporting surgical LAA occlusion is even scarcer with 3 small randomized controlled trials including a total of 171 participants.⁴ The ongoing Left Atrial Appendage Occlusion Study III that has almost completed recruitment will provide definitive answers to the effectiveness of surgical LAA occlusion. Given the absence of conclusive evidence regarding the benefits of surgical LAA occlusion, the performance of this procedure should be limited to trials that will clarify its efficacy and safety. Meanwhile, patients who have undergone this procedure should remain on OAC as per guidelines.

Although the single-center experience reported by Murashita and colleagues is interesting, the observed low event rate in their 2-surgeon practice does not represent the definitive evidence the surgical community requires. It needs to be reemphasized that no conclusive evidence supports discontinuation of OAC after surgical ablation of AF or LAA occlusion.

Graham R. McClure, MSc^{a,b}

Emilie P. Belley-Cote, MD^{b,c,d}

Richard P. Whitlock, MD, PhD^{b,d,e}

^aMichael G. DeGroote School of Medicine

Departments of ^bClinical Epidemiology and Biostatistics

and

^cMedicine

^dDivision of Cardiac Surgery

McMaster University

Hamilton, Ontario, Canada and

^ePopulation Health Research Institute

Hamilton, Ontario, Canada

References

1. Murashita T, Rankin JS, Wei LM, Roberts HG, Alkhouli MA, Badhwar V. Oral anticoagulation may not be necessary for patients discharged in sinus rhythm after the Cox Maze IV procedure. *J Thorac Cardiovasc Surg*. 2018; 155:997-1006.
2. McClure GR, Belley-Cote EP, Jaffer IH, Dvirnik N, An KR, Fortin G, et al. Surgical ablation of atrial fibrillation: a systematic review and meta-analysis of randomized controlled trials. *Europace*. November 27, 2017 [Epub ahead of print].
3. Holmes DR, Doshi SK, Kar S, Price MJ, Sanchez JM, Sievert H, et al. Left atrial appendage closure as an alternative to warfarin for stroke prevention in atrial fibrillation: a patient-level meta-analysis. *J Am Coll Cardiol*. 2015;65:2614-23.
4. Hanif H, Belley-Cote EP, Alotaibi A, Dvirnik N, Neupane B, Beyene J, et al. Left atrial appendage occlusion for stroke prevention in patients with atrial fibrillation: a systematic review and network meta-analysis of randomized controlled trials. *J Cardiovasc Surg (Torino)*. 2018;59:128-39.

<https://doi.org/10.1016/j.jtcvs.2018.02.079>

The Editor welcomes submissions for possible publication in the Letters to the Editor section that consist of commentary on an article published in the Journal or other relevant issues. Authors should: • Include no more than 500 words of text, three authors, and five references. • Type with double-spacing. • See <http://jtcvs.ctsnetjournals.org/misc/fora.shtml> for detailed submission instructions. • Submit the letter electronically via jtcvs.editorialmanager.com. Letters commenting on an article published in the JTCVS will be considered if they are received within 6 weeks of the time the article was published. Authors of the article being commented on will be given an opportunity to offer a timely response (2 weeks) to the letter. Authors of letters will be notified that the letter has been received. Unpublished letters cannot be returned.