Commentary: Is “concomitant” a bad word in atrial fibrillation?

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Studies are designed to answer questions. In this issue of the *Journal*, Ad and colleagues¹ address the question, “Is the long-term safety and efficacy of the Cox maze procedure similar in patients with and without mitral valve disease?” The answer is yes. More on that important finding in a moment. Before getting to that, let’s address a more fundamental question: Why don’t surgeons perform the Cox maze procedure in patients with atrial fibrillation (AF)?

In current practice, no more than one half of cardiac surgical patients with AF receive a Cox maze procedure, and this figure is even lower in patients without mitral valve disease.^{2,3} Previously, surgeons could rely on the uncertainty associated with unanswered questions to justify their decision to withhold the Cox maze procedure from patients afflicted by AF. There were questions about effectiveness; these were answered by numerous studies demonstrating that application of the Cox maze procedure substantially increases the likelihood of return to sinus rhythm.^{4,5} Concerns regarding safety and prolonged pump times were addressed by the development of alternate energy sources and studies confirming their safe application.^{4,5} More recently, large observational studies suggest that the Cox maze procedure may be associated with improved short- and long-term survival.^{6,7} We should not need any more evidence to spur us to change practice and treat cardiac surgical patients with AF. However, it appears that we do.

With fastidious application of a standard lesion set and meticulous follow-up, Ad and colleagues¹ demonstrate that the Cox maze procedure works equally well in those with and without mitral valve disease. Opening the left and right atria and extending crossclamp and bypass times by 30 minutes or less freed the majority of patients from AF and caused no harm. Given this demonstration of safety and effectiveness, Ad and coauthors conclude that “Surgeons should base the decision to perform surgical ablation procedures on...the benefit to patients.” Isn’t this the single most important consideration behind every surgical decision?

The left atrial lesion set of the Cox maze procedure.

Central Message

Treatment of concomitant AF is safe and effective, regardless of the primary indication for surgery. Ignore concomitant AF at your patients’ peril.

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Returning to the original question, let’s once more consider the faulty reasoning behind our underuse of a safe and effective therapy. Why do we leave AF untreated? I believe the answer lies in the word “concomitant.” We hide behind this word, interpreting concomitant to mean “secondary” or “unimportant.” Consider other scenarios that include patients with 2 cardiac problems. If we perform an aortic valve replacement (AVR) in a patient found to have a tight left anterior descending lesion, we accord the life-saving left internal mammary artery–left anterior descending graft the same importance as the life-saving AVR. If that patient with aortic stenosis has clean coronaries but long-standing persistent AF, most of us ignore the second condition (ie, AF) and perform AVR alone. We leave the patient with AF, meaning that we leave him or her with the requirement for life-long anticoagulation, an increased risk of stroke, and a reduced life expectancy. The decision to withhold the Cox maze procedure violates our primary directive; it harms the patient. Before choosing that course, ask yourself which operation you would want if you were the patient.

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