Author Reply to Commentary: Surgical Treatment for Atrial Fibrillation: When It Comes to Atrial Fibrillation It Is Not the Great Evidence, It Is the Surgeon

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The Editorial commentary by Drs. Coffey and Lee entitled “It’s the Surgeon, Not the Hospital Volume” is a good example that underscores the lack of regard for atrial fibrillation (AF) as a major morbidity with significant impact on patient outcomes if left untreated. This attitude towards AF by referring physicians and cardiac surgeons is well established in our community and we believe that this editorial may inadvertently contribute to the notion that AF can be left alone at the time of surgery at a surgeon’s discretion. (1) Despite a very high level of evidence that has led to the highest class recommendation in clinical guidelines by multiple societies, the authors accept the notion that surgeons can walk away from the addition of surgical ablation as part of their decision-making process disregarding the significant impact on patient outcome and perhaps without an appropriate discussion and consent with the patient. (2–4)

There are a few points that are worth our response as the Commentary by Coffey and Lee may misrepresent the research questions and the methodology used:

1. We did not assume anything when assessing the relationship of volume to surgical ablation while reviewing our statewide data. (5) Our research question was simply to investigate if there was any association of surgical volume on treatment of AF at the time of surgery. To our surprise, there was no relationship between greater volume and greater surgical ablation rates. This finding is important and worth further investigation as it is somewhat different from the clinical practice existing with other cardiac conditions and surgical procedures, such as mitral valve repair rates.

2. Surgical acuity cannot be the only good explanation for the abysmal rates of surgical ablation in several centers in our state and our previous published data support this claim. (6,7) Surgical risk is very relevant in our everyday work and should never be overlooked. However, we cannot really continue to support decision making that is unsubstantiated by the evidence and often leads to avoiding surgical ablation altogether or eliminating important segments of the procedure. How can Drs. Coffey and Lee explain the extremely low rates of surgical ablation in patients with non-mitral valve
disease? Surgical risk is certainly not the case in many of those patients and unfortunately the main explanation is surgeon behavior and not competency. It may be that the only way to fix this trend is by assimilating surgical ablation for AF into the quality metrics for the procedure, much like we did with left internal thoracic artery (ITA) use. If we look at the quality of the data that supported the inclusion of ITA grafts as a quality metric, it is clear that a single-center retrospective analysis was the major contributor to that change. It is also important to abandon the 30-day outcome as the only major time point to measure surgical results. It is an artificial time point that very often does not represent the real outcome, especially in patients with more advanced disease and multiple comorbidities.

3. In their Commentary, the authors ignored the very low rates of surgical ablation captured for several centers in the state and more so the clear deviations from practice guideline recommendations to not perform a limited surgical ablation lesion set in patients with advanced AF (non-paroxysmal AF and enlarged atrium). Although the issue is a complex one, using the limited lesion set in such patients as the only ablation strategy without any follow-up electrophysiological study and ablation is likely insufficient and may lead to an extremely high failure rates. We do not really believe that Drs. Coffey and Lee can support their claims based only on the assumption that patient complexity, and not the disregard to the importance of AF at the time of surgery, is at the center of the decision not to perform the procedure.

4. Although our study describes results separated by hospitals, the conclusions of the article are not that hospital-level factors per se are the sole explanation of these inconsistent patterns. The message is related more to the fact that the proportion of patients with AF treated with surgical ablation is not consistent with the expected values given the volume of cases and the characteristics of the patients and surgical procedures conducted at each center. We agree with the authors of the Commentary, that it is the surgeon decision-making within each center that contributes to this imbalance, but not solely based on patient acuity factors. Our analyses found that even after adjustment for patient acuity factors (i.e., age, status, comorbid conditions) and surgical procedures, there remained a significant but inconsistent pattern for hospital on the odds for surgical ablation.
Unexpectedly, the odds for a patient to receive surgical ablation for AF were actually greater for almost all smaller hospitals compared to the highest volume center.

5. The final point we would like to discuss is the role of academic centers in surgical AF education. The findings of this study regarding surgical ablation for AF in academic centers were coincidental and yet very surprising and some would say disappointing. Although not the central message of our study, those findings are important, worth a deeper dive, and are potentially a huge opportunity for educating the next generation of cardiac surgeons. We are all familiar with some of the dynamics in training programs that may lead to decisions associated with the treatment of AF at the time of surgery and we need to rise above it by improving the training and changing the curriculum. As mentioned, surgical acuity is not the issue here, it is the lack of understanding that leaving patients with AF is hurting them as clearly stated previously by one of the authors.(11)

In summary, our article aimed to explore the status of surgical ablation in the state of Maryland. Our findings suggest that much work is needed to improve our care delivery to those patients and the decision-making process of the individual surgeon should be challenged more often to ensure it aligns with the guidelines within reason. We are very optimistic that our data provide a path forward in improving patient care.
References


