Reply to the Editor:

We thank Kataoka and Imamura for their interest in our study demonstrating superior clinical outcomes of atrial fibrillation (AF) surgery concomitant with mitral valve (MV) surgery compared with MV surgery alone. Multi-center, big data studies are generally regarded as more powerful studies providing more clinical information compared with smaller, single-center studies. However, bigger is not always better. Big data studies may have disadvantages such as potential for selection bias and confounding. In addition, big data studies may not capture all relevant variables. We designed our large-scale study to elucidate the clinical outcomes and results of AF surgery concomitant with MV surgery. To decrease the heterogeneity and confounding variables, 19 variables were selected to perform propensity score matching. We did not include variables such as left atrial volume index or presence of pulmonary hypertension because those variables were not available from all participating hospitals and because inclusion of too many echocardiographic parameters that are not truly objective would bring disadvantageous effect.

The results showed that approximately 50% of patients who did not undergo AF surgery were free from AF after MV surgery. It was difficult to classify the study patients according to types of AF in a multicenter study. Our study included patients with AF irrespective of type; patients with paroxysmal AF were included alongside patients with persistent AF, long-standing persistent AF, and permanent AF. This might have influenced the relatively high percentage of sinus rhythm in patients with MV disease without AF surgery. Other reasons for conversion to sinus rhythm would be correction of underlying MV disease and administration of antiarrhythmic agents, although data on postoperative medications were not collected.

We defined AF recurrence as AF lasting ≥30 seconds or if present on the entire 10-second 12-lead standard electrocardiogram during follow-up. The diagnosis of AF recurrence was heterogeneous among the participating hospitals, and longer-duration Holter monitoring was performed only in a small number of patients, which might have caused underdiagnosis of AF recurrence in this study. In addition, the lesion sets in AF surgery might be different among centers and surgeons and there is a possibility of incomplete ablation. Nevertheless, the safety and efficacy of concomitant AF surgery in patients undergoing MV surgery seems to be obvious. A well-controlled prospective, randomized, multicenter study is warranted to overcome the limitations of the present study.

Conflict of Interest Statement

The authors reported no conflicts of interest.

The Journal policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

References


https://doi.org/10.1016/j.jtcvs.2024.02.015