We thank Dr Koza for his interest in our study and for his important comment. Most of the studies in the past did not define postoperative atrial fibrillation (POAF) during a specific period of time. Therefore, the definition of POAF in the present study is according to a study published recently, which defined new-onset POAF as that occurring on continuous telemetry throughout hospitalization or electrocardiogram during follow-up within 30 days after cardiac surgery. We completely agree that this definition can introduce a selection bias, in that patients with a longer hospital monitoring time will have a higher probability of detection of POAF than those with a shorter hospital stay. In concordance with a previous study, however, the onset of POAF in the present study was typically observed within 7 days following cardiac surgery, when most of the patients were still hospitalized. Also, there was no significant difference in duration of hospital stay (22.6 ± 14.0 days vs. 19.9 ± 13.9 days, P = 0.19) between those with and without POAF in our study.

The primary hemodynamic consequence of mitral valve disease, especially mitral stenosis, is a pressure gradient between the left atrium and left ventricle. The elevated left atrial pressure is apparent in patients with severe mitral valve disease. Therefore, atrial fibrillation (AF) is more common in patients with mitral valve disease due to elevation of left atrial pressure and consequent left atrial enlargement, than those without mitral valve disease. In order to minimize selection bias, our study and a previous one both excluded those with mitral valve disease. In order to minimize selection bias, our study and a previous one both excluded those with mitral valve disease. In order to minimize selection bias, our study and a previous one both excluded those with mitral valve disease. In order to minimize selection bias, our study and a previous one both excluded those with mitral valve disease. In order to minimize selection bias, our study and a previous one both excluded those with mitral valve disease. In order to minimize selection bias, our study and a previous one both excluded those with mitral valve disease. In order to minimize selection bias, our study and a previous one both excluded those with mitral valve disease.

The lack of specific data for systemic inflammation, an important consideration in the postoperative state, was a limitation of the study. The incidence of POAF, however, peaked on the third postoperative day, which corresponds to time to peak inflammation after cardiac surgery.

With regard to measurement of diastolic function, several echocardiographic Doppler criteria, include mitral inflow E/A, septal e’, E/e’ and pulmonary venous flow could be used as indicators of diastolic function, but E/e’, which is a continuous parameter, is the most common and simple measurement of diastolic function. Also, a previous study also showed that E/e’ is strongly correlated with outcome in patients with AF. Finally, we found no significant differences in the rate of postoperative complications between patients with and without POAF in our study.

References


Su-Kiat Chua, MD
Graduate Institute of Clinical Medicine, College of Medicine, Department of Internal Medicine, Department of General Medicine, Shin Kong Wu Ho-Su Memorial Hospital, Taipei, Taiwan

Kou-Gi Shyu, MD, PhD
Graduate Institute of Clinical Medicine, College of Medicine, Taipei Medical University; Division of Cardiology, Department of Internal Medicine, Shin Kong Wu Ho-Su Memorial Hospital, Taipei, Taiwan

Huey-Ming Lo, MD
Division of Cardiology, Department of Internal Medicine, Shin Kong Wu Ho-Su Memorial Hospital, Taipei; School of Medicine, Fu Jen Catholic University, New Taipei City, Taiwan

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