Perioperative predictors of atrial fibrillation

To the Editor,

We have read with great interest the article entitled "Post-operative atrial fibrillation prediction following isolated surgical aortic valve replacement" in the current issue of the journal (1). In this study, authors aimed to determine pre- and perioperative risk factors in patients undergoing surgical aortic valve replacement and to design a model that can predict the postoperative arrhythmic event.

They found that age, diabetes mellitus, increased preoperative creatinine levels, and increased LA volume were associated with postoperative atrial fibrillation (AF). Intraoperative variables, such as cross clamp and cardiopulmonary bypass times, which are very important for AF, were not associated with postoperative AF. We see that variables associated with AF by the authors are mostly preoperative variables. They also reported that prolonged ventilation, stroke, neurological complications, and acute renal failure showed significant differences in the AF group. When we consider all of these results in the study, we believe that postoperative AF is mostly associated with postoperative inflammatory problems, which is not enough to design a model that can predict the postoperative arrhythmic event with preoperative variables as in this study. Otherwise, inflammatory markers must be added to predict postoperative AF. They reported that multivariate analysis identified high arrhythmic risk for advanced age, body mass index, moderate tricuspid regurgitation, prolonged ventilation, longer intensive care unit stay, and increased LA volume. We think that we must exclude patients with prolonged ventilation, longer intensive care unit stay, acute kidney injury, and neurological complications from the AF group because these variables are postoperative problems that cause AF in this study group. If authors want to design a model that can predict the postoperative arrhythmic event, then they need a standardized patient population between with and without AF group. We are also in the opinion that, currently, it is not enough to design a model to predict postoperative AF without perioperative inflammatory markers, such as CRP and interleukins.

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Reference

1.   Iliescu AC, Salaru DL, Achitei I, Grecu M, Floria M, Tinica G. Post-operative atrial fibrillation prediction following isolated surgical aortic valve replacement. Anatol J Cardiol 2018; 19: 394-400.