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Preoperative atrial fibrillation in patients undergoing cardiac surgery: Gender versus other factors

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Dear Editor,

We have read the article by Kuźma et al. [1], entitled “Sex differences in long-term survival following cardiac surgery in patients with underlying atrial fibrillation” with great interest. First of all, we congratulate the authors for their contribution to the literature. However, we would like to discuss some issues with survival rates after cardiac surgery.

The current study attempts to answer the question of whether gender difference affects long-term outcomes in patients with preoperative atrial fibrillation (AF) undergoing cardiac surgery [1]. All adult patients undergoing heart surgery were included in the study. At the end of the study, the authors concluded that the female population was characterized by poorer survival after cardiac surgery and this trend reversed after 2 years of follow-up [1]. However, it should also be considered how long these patients lived with AF in the preoperative period. This may affect the prognosis [2]. In addition, the patients included in the study underwent different surgical procedures. Some patients may have returned to sinus rhythm after cardiopulmonary bypass. This will affect the postoperative prognosis. For these reasons, it may be useful to demonstrate the rates of postoperative remission or recurrence of AF between genders. In addition, although not statistically significant, female patients underwent surgical

ablation more frequently (15.2% vs. 13.3%; $P = 0.056$). Could two-year rates of return to sinus rhythm after surgical ablation affect prognosis?

The authors included recently operated patients (January 1, 2018, and March 31, 2020) in their current study [1]. Left atrial appendage occlusion (LAAO) treatment can be applied to prevent thromboembolic risks in patients with AF [3]. In the current study, patients with preoperative AF undergoing cardiac surgery were included and LAAO treatment was performed in approximately 20% of patients [1]. In our opinion, this rate is quite low. We want to get the authors' valuable comments on this subject. How do they decide to apply LAAO in cardiac surgery operations in patients with preoperative AF?

In cardiac surgery prognosis studies, it may be useful to clarify the primary cardiac pathology. As a result, a patient with a SYNTAX score of 40 may not have the same postoperative long-term prognosis as a patient with a SYNTAX score of 18. Or, valve surgery in a heart that has been subjected to ischemic mitral regurgitation for a long time may not have the same prognosis as mitral stenosis surgery.

Finally, one of the most important results obtained in the study is that the female gender has a negative effect on clinical outcomes for up to two years, while after two years the results turn against men. We would appreciate the authors' valuable comments on this important finding.

Article information

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