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Preoperative pulmonary artery hypertension as a risk factor: the tip of the iceberg

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Dear Editor,

We have read the article by Velioglu et al.[1], entitled "Does pulmonary hypertension affect early-term outcomes of off-pump coronary artery bypass surgery?" with great interest. We congratulate the authors for their valuable contributions and successful off-pump coronary surgeries. However, I would like to discuss some points about preoperative pulmonary hypertension in patients scheduled to undergo off-pump coronary artery bypass graft (OPCABG) surgery.

In this current study, the authors included a total of 1,107 patients undergoing elective first-time OPCABG surgery in this retrospective observational cohort study. The patients were categorized into two groups according to their preoperative systolic pulmonary artery pressure (SPAP) values. The PHT group (n=104) consisted of patients with an SPAP value >30 mmHg, while the non-PHT group (n=1003) consisted of patients with an SPAP value ≤30 mmHg. The authors concluded that both patient groups had similar postoperative outcomes[1]. Could this be due to the large number of patients with an SPAP value between 30 and 50 mmHg? How many patients with an SPAP value above 50 mmHg were in the PHT patient group? We would like to receive your valuable comments on this matter.

Chronic obstructive pulmonary disease (COPD) is an important lung disease[2]. In these patients, PHT may develop according to the severity of obstruction and inflammation[3]. In this study, in which pulmonary hypertension was investigated as a risk factor, we think that the frequency of COPD is a very important parameter. In this study, the frequency of COPD was found to be 22.1% in the PHT group and 7.4% in the non-PHT group, with a p-value of 0.019[1]. Considering the number of patients in the patient groups, we think that the p-value may be inaccurate with the current rates. We believe that it would be useful to check it statistically. This valuable study may be misleading, as it can be a good resource for further systematic review studies.

The European System for Cardiac Operative Risk Evaluation II (EuroSCORE II) is an invaluable risk-scoring system in open-heart surgery operations[4]. Has EuroSCORE II been calculated for your patient groups? Could this be the reason for the similar postoperative results between the groups?

Finally, we would like to address the postoperative atrial fibrillation (PoAF) condition, which is an important problem that occurs after coronary bypass operations. The incidence of PoAF was 41.3% in the PHT group and 22.1% in the non-PHT group. The p-value is specified as 0.033. First, we think that the p-value should be recalculated because the significance seems stronger. Many factors may affect this significant difference in the frequency of PoAF between the groups. Perioperative medical treatment preferences are also important for PoAF[5-7]. What were your perioeprative beta-blocker statin and hypertensive treatment protocols in your patient group?

AUTHORS' CONTRIBUTIONS

ME: Conceptualization, Data curation, Investigation, Methodology, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. **UA:** Investigation, Methodology, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. **YA:** Investigation, Methodology, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. **SY:** Investigation, Methodology, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

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