

Letter to the Editor: What are the factors affecting the progression of kidney failure mortality and morbidity after cardiac surgery in patients with chronic kidney disease”.

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Letter:

Dear Editor,

We have read the article “What are the factors affecting the progression of kidney failure, mortality and morbidity after cardiac surgery in patients with chronic kidney disease” by Bedih Balkan MD et al.¹ The author’s efforts regarding this sensitive topic are highly appreciated and need to be acknowledged by readers.

We agree with the conclusion of the article that Age, Complications, Euro score, Cross clamp time, Pulmonary artery pressure, Postoperative BUN, Creatinine, and CKD-EPI GFR were found to be effective in predicting 30 days mortality of patients. However, few concerns arise regarding the validity of the study.

Firstly, the single-centered study and unavailability of particular socioeconomic status were not mentioned. For example, a study by Colleen Gorman Koch et al.² has explained that Lower socioeconomic status is associated with lower risk-adjusted quality of life for patients undergoing cardiac surgery. Therefore, further characterization of risk factors for the poor quality of life offers an opportunity for intervention. Secondly, the small sample size may have an impact on the rationale for the findings. A study by Charles E Hobson et al.³ included 2973 patient cases that increased the power of their study, and the findings seemed legitimate. Third, the author should have specified the ethnic origin of the patients in the study because it could further specify the type of diversity of the population. For instance, a 2021 study by Micheal Heung MD et al.⁴ has explained the role of race on Acute kidney injury after cardiac surgery. The author has concluded that Black patients had a 50% increased odds of having moderate to severe postoperative AKI compared with White patients. Fourth, the author has excluded the pediatric population (people under age 18) from the study even though this population has a major contribution to cardiac surgeries with AKI. A 2022 study by Jef Van den Eynde et al.⁵ has evaluated a variety of biomarkers as predictors of cardiac surgery-associated AKI in children (under 18 years), which were the most prominent with excellent diagnostic qualities. Fifth, the author has not mentioned preoperative protective strategies to prevent postoperative AKI. A study by Isabell A . just MD et al.⁶ has mentioned preoperative fluid management as a preventive strategy for AKI after cardiac surgery to validate this point. Finally, the author should have mentioned long-term mortality instead of 30 days mortality in patients with CKD after cardiac surgery. For example, a study by Alas klavek et al.⁷ has explained a 5-year experience with cardiac surgery procedures in dialysis-dependent patients. He has suggested the predictors of increased late mortality as Heart failure, Urgent/emergent surgery, the complexity of surgical procedures, and postoperative low cardiac output syndrome.

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