Reviewer’s report

Title: Cardiopulmonary bypass time is an independent risk factor for acute kidney injury in emergent thoracic aortic surgery: a retrospective cohort study

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Reviewer: KENJI IINO

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This study by Xu and colleagues examine the association between CPB time and postoperative AKI in 115 patients undergoing thoracic aortic surgery for acute aortic dissection. The authors conclude that CPB time is an independent predictor of AKI after thoracic aortic surgery in patients with acute aortic dissection.

I would like to make a few comments.

1) Authors need to detail the patient's characteristics about acute aortic dissection:

Stanford classification or DeBakey classification, presence or absence of malperfusion, presence or absence of renal artery dissection or occlusion, presence or absence of preoperative shock or AMI.

Is there any difference in preoperative patient background mentioned above between patients with and without postoperative AKI?

2) Authors need to describe circulatory arrest temperature. Did all patients undergo total arch replacement with FET? Company information about FET and artificial vascular graft should be added. Is there any difference in surgical procedure between patients with and without postoperative AKI?

3) What variables were included in the multivariable analysis to conclude that CPB time was an independent variable for postoperative AKI? If the difference in the variables mentioned above was present, that would be a confounding variable.

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An article whose findings are important to those with closely related research interests

Quality of written English

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