Determinants of Early Prognosis after Acute Type A Aortic Dissection Surgery

Sir,

We have read with great interest the article by Yang et al. titled “Predictive Value of Postoperative Indices in Acute Stanford Type A Aortic Dissection”. First of all, we congratulate the authors for their valuable contribution to the literature. However, we would like to discuss some points about Acute Stanford Type A Aortic Dissection (ATAAD) surgery and its early prognosis.

In their retrospective observational study, the authors included hospitalised patients who were diagnosed with ATAAD and admitted to the Second Hospital of Shandong University, Jinan. They excluded patients aged <18 years with non-type-A aortic dissection operation, failure to perform surgery, voluntary discharge, and patients with incomplete data. Finally, 295 patients were included in the study and the mortality rate was 7.8% at discharge. In this study, the authors investigated the effect of postoperative blood values on mortality.ATAAD is a major cardiovascular emergency and has a very high risk of mortality. Early mortality in these patients depends on many factors, and especially the preoperative clinical condition of the patient and the surgical procedure performed significantly affect mortality. Many factors affect mortality, such as the use of heart support devices, including an intra-aortic balloon pump, in the perioperative period, cardiopulmonary bypass duration, brain protection methods, whether or not accompanied by coronary artery bypass surgery, the presence of cerebral ischaemia, visceral organ ischaemia, and bleeding.

In the recent years, various markers obtained from routine blood parameters have been investigated in the prognosis of many cardiovascular diseases. In their study, the authors reported low postoperative haemoglobin [Odds ratio (OR): 0.958, 95% confidence interval (CI): 0.923 - 0.994, p=0.023], high creatinine (OR: 1.006, 95% CI: 1.000 - 1.012, p=0.045), and Troponin I elevation (OR: 1.047, 95% CI: 1.020, 1.075, p=0.001) to be independent predictors of mortality. However, it is very important that known risk factors (for ATAAD: surgery type, perfusion type, presence of malperfusion, etc.) are included in the risk analyses performed with routine blood parameters.

In this regard, we believe that the authors’ answers to some questions will increase the value of the study. Were similar brain protection methods used in both patient groups (mortality and survival)? What was the perioperative visceral ischaemia rate and was it similar between the groups? How many patients did you perform concomitant coronary artery bypass surgery on? Was there a difference between the groups? How many patients underwent total arch replacement? Were the use of amounts of perioperative blood product similar between the groups?

We believe that the answers to the above questions will significantly improve the scientific value of the paper.

COMPETING INTEREST:
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ME, BA: Substantial contribution to the design of the work, drafting the work and revising it critically for important intellectual content, and final approval of the version to be published.

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Risk factors for postoperative mortality in patients with acute Stanford Type A aortic dissection.

To enhance patient care, these suggestions underscore the necessity for a more comprehensive study to assess pertinent influencing factors.

REFERENCES


