Early-term prognosis in patients with acute aortic dissection: calm before the storm

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Dear Editor,

We have read the article by Dönmez et al.[1], entitled "Evaluation of descriptive performances of platelet indices, neutrophil/lymphocyte ratio, and platelet/lymphocyte ratio in aortic dissections" with great interest. First of all, we congratulate the authors for their valuable contribution to the literature. However, we would like to discuss some points about acute aortic dissection and its early-term mortality.

Acute aortic dissections are important cardiovascular emergencies with high perioperative mortality and morbidity which require urgent interventions[2]. Various parameters obtained from routine blood values have been investigated in the literature to predict early clinical outcomes. These are usually neutrophil, lymphocyte, C-reactive protein, and platelet-related parameters[3,4]. However, while investigating these parameters as clinical predictors, we think that important determinants of mortality should be included in the analysis. The most important of these determinants are the types of performed intervention according to dissection types (surgery, endovascular intervention, medical treatment, etc.), the perfusion methods used in the surgery, the amount of blood products used, the preoperative left ventricular ejection fraction, the presence of low-cardiac output syndrome, and the time between surgery and the first symptom[5]. In addition, in the case of type 2 dissection, only the ascending aorta limited dissection status may also have an impact on mortality[6].

However, the rate of DeBakey Type 1 dissection in the 30-day survival group in the study was approximately twice that of the 30-day mortality group. The DeBakey Type 2 dissection rate was more than twice in the 30-day mortality group than in the 30-day survival group. This information is quite different from the known literature. What do you think is the reason for this situation? Were the Type 2 dissection patients in the study not operated? Did the patients not accept the operation? Was there a preoperative cerebrovascular accident or heart failure? Did it consist of patients who had had previous cardiac surgery? Otherwise, it is clear that Type 1 dissection is a high mortal condition in the early- and long-term period[7].

Various cerebral protection methods can be used in Type 1 aortic dissection (61.3% of patients in your study) surgery, including unilateral/bilateral antegrade cerebral perfusion, retrograde cerebral perfusion, and deep hypothermia. The effect of this situation on morbidity has been demonstrated[8]. Early clinical results may be affected surgically, depending on the surgical area in the aorta[9].

As a result, it may mislead us to reach a conclusion on the early mortality of acute aortic dissections only from the blood values at the time of admission. The patients are open to many treatments from the moment they are admitted to the emergency department. Of course, admission blood values may affect mortality, but it would be useful to add data from interventional procedures to multivariate analyses investigating the causes of mortality.

AUTHORS' CONTRIBUTIONS

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

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