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## **Author's Reply**

To the Editor,

We thank the authors for their evaluation of our article entitled "Effect of the type of cardiopulmonary bypass pump flow on postoperative cognitive function in patients undergoing isolated coronary artery surgery" published in the Anatolian Journal of Cardiology 2016 (1).

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Postoperative cognitive dysfunction (POCD) is a clinical situation that has multifactorial etiology, especially in cardiac surgery. Therefore, we tried to eliminate possible factors of POCD such as history of carotid lesion, diabetes mellitus, valvular disease, liver or renal failure, ejection fraction <55%, transient ischemic attack, use of psychiatric medication, previous surgery for another reason, or a cognitive function disorder. We also excluded geriatric patients (age >65 years). We wanted to standardize all of the perioperative variables about anesthesia and surgery. We didn't report them in the methods section of article because no significant differences between groups were found.

In a recent review, Androsova et al. (2) summarized related biomarkers for 2 different clinical conditions: delirium and POCD. The authors concluded findings about S100 $\beta$  were contradictory and also that neuron-specific enolase was not associated with POCD. At this point, our results for these biomarkers are similar to those seen in the literature.

Rasmussen et al. (3) reported pattern of diurnal variation in cortisol level was significantly related to POCD. However, studies have mostly examined cortisol as a marker of delirium (4). To our knowledge, except for Rasmessen et al. (3), only Mu et al. (5) found serum cortisol level related to POCD in a cohort study. In our opinion, this issue must be investigated with a large randomized trial and/or meta-analysis.

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