

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 β 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 Rasmussen 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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References

1. Öztürk S, Saçar M, Baltalarlı A, Öztürk İ. Effect of the type of cardiopulmonary bypass pump flow on postoperative cognitive function in patients undergoing isolated coronary artery surgery. *Anatol J Cardiol* 2016 May 9. Epub ahead of print.
2. Androsova G, Krause R, Winterer G, Schneider R. Biomarkers of postoperative delirium and cognitive dysfunction. *Front Aging Neurosci* 2015; 7: 112. [Crossref](#)
3. Rasmussen LS, O'Brien JT, Silverstein JH, Johnson TW, Siersma VD, Canet J, et al. Is peri-operative cortisol secretion related to post-operative cognitive dysfunction? *Acta Anaesthesiol Scand* 2005; 49: 1225-31. [Crossref](#)
4. Kazmierski J, Banys A, Latek J, Bourke J, Jaszewski R, Sobow T, et al. Mild cognitive impairment with associated inflammatory and cortisol alterations as independent risk factor for postoperative delirium. *Dement Geriatr Cogn Disord* 2014; 38: 65-78. [Crossref](#)
5. Mu DL, Li LH, Wang DX, Li N, Shan GJ, Li J, et al. High postoperative serum cortisol level is associated with increased risk of cognitive dysfunction early after coronary artery bypass graft surgery: a prospective cohort study. *PLoS One* 2013; 8: e77637. [Crossref](#)

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SYNTAX score predicts postoperative atrial fibrillation in patients undergoing on-pump isolated coronary artery bypass grafting surgery

To the Editor,

We read the published article entitled "SYNTAX score predicts postoperative atrial fibrillation in patients undergoing on-pump isolated coronary artery bypass grafting surgery" published in *Anatol J Cardiol* 2015 Nov 18 (1). with great pleasure. I congratulate the authors for this excellent study; however, we would like to highlight some points regarding this article. In their study, the authors reported that SYNTAX score, age, and chronic obstructive pulmonary disease are independently related to postoperative atrial fibrillation (PoAF). PoAF definition is a controversial issue and not clearly identified in the literature. According to 2012 European Society of Cardiology guidelines for diagnosis and treatment of atrial fibrillation, absolutely irregular RR intervals and absence of consistent P waves on the surface electrocardiogram (ECG) lasting long enough for 12-lead ECG to be recorded, or at least 30 seconds on rhythm strip, should be considered AF (2). The authors defined PoAF as an AF episode following surgery lasting longer than 5 minutes. How were patients who had AF lasting less than 5 minutes classified? In addition, it was reported that Geçmen et al. (1) followed the patients with continuous telemetry for between 72 and 96 hours after surgery; however, mean length of stay in hospital was not mentioned. PoAF is known to increase length of hospital stay, sometimes extending to 7 to 10 days. In this context, we could expect to find a difference in length of hospital stay between patients with and without PoAF and authors should report this data.

Another issue we would like to discuss is risk factors for PoAF. In this study, the authors evaluated a number of risk factors that might be associated with PoAF. However, obstructive sleep apnea, obesity, and inadequate use of beta blockers or renin-angiotensin aldosterone (RAS) blockers have also been shown to be independent predictors of new onset PoAF (3, 4). These risk factors should be included in statistical analyses. We suppose that many patients in this study might use RAS and beta blockers since they had many cardiovascular diseases such as hypertension, heart failure, and acute coronary syndrome. We think that adding these variables to statistical analyses may change predictive value of SYNTAX score for PoAF.

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References

1. Geçmen Ç, Babür Güler G, Erdoğan E, Hatipoğlu S, Güler E, Yılmaz F, et al. SYNTAX score predicts postoperative atrial fibrillation in patients undergoing on-pump isolated coronary artery bypass grafting surgery. *Anatol J Cardiol* 2015 Nov 18. Epub ahead of print.
2. Camm AJ, Lip GY, De Caterina R, Savelieva I, Atar D, Hohnloser SH, et al. ESC Committee for Practice Guidelines (CPG). 2012 focused update of the ESC Guidelines for the management of atrial fibrillation: an update of the 2010 ESC Guidelines for the management of atrial fibrillation—developed with the special contribution of the European Heart Rhythm Association. *Europace* 2012; 14: 1385-413.
3. Mathew JP, Parks R, Savino JS, Friedman AS, Koch C, Mangano DT, et al. Atrial fibrillation following coronary artery bypass graft surgery: predictors, outcomes, and resource utilization. MultiCenter study of perioperative ischemia research group. *JAMA* 1996; 276: 300-6. **Crossref**
4. Banach M, Rysz J, Drozd JA, Okonski P, Misztal M, Barylski M, et al. Risk factors of atrial fibrillation following coronary artery bypass grafting: A preliminary report. *Circ J* 2006; 70: 438-41. **Crossref**

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Author's Reply

To the Editor,

We are much pleased with the authors' interest in our article entitled "SYNTAX score predicts postoperative atrial fibrillation in patients undergoing on-pump isolated coronary artery bypass grafting surgery" (1), as published ahead of print for the *Anatol J Cardiol* 2015 Nov 18, and we would like to thank them for their contributions.

Firstly, definitive diagnosis of postoperative atrial fibrillation (PoAF) is not found in the relevant guidelines. In our study, PoAF was defined as it has been in previous studies (2). In the literature there are many controversial definitions of PoAF (3, 4). In our study, patients were followed with continuous telemetry for between 72 and 96 hours. A 12-lead electrocardiography (ECG) was obtained from the patients every 12 hours or 24 hours at the intensive care and in-patient units, respectively. Rhythm monitoring was continued until patients were discharged from the hospital. If patients had complaints such as dyspnea, palpitation, or angina, 12-lead ECG was taken during hospitalization. Incidence of PoAF could increase beyond the 72 to 96-hour window observed with continuous telemetry. The rate of PoAF may be underestimated in our study.

Drug use, including beta blockers, renin angiotensin aldosterone blockers, and statins before surgery could affect incidence of PoAF. In our study, percentage of beta blocker, angiotensin-converting enzyme inhibitor, and angiotensin receptor blocker

use was 100% and 98.9%, respectively. There was no difference in drug use between the 2 groups. Obstructive sleep apnea and obesity were not included in our study as independent parameters because of low number of instances.

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References

1. Geçmen C, Güler GB, Erdoğan E, Hatipoğlu S, Güler E, Yılmaz F, et al. SYNTAX score predicts postoperative atrial fibrillation in patients undergoing on-pump isolated coronary artery bypass grafting surgery. *Anatol J Cardiol* 2015 Nov 18. Epub ahead of print.
2. Özyayın M, Dede O, Varol E, Kapan S, Türker Y, Peker O, et al. Effect of renin-angiotensin aldosterone system blockers on postoperative atrial fibrillation. *Int J Cardiol* 2008; 127: 362-7. **Crossref**
3. Zangrillo A, Landoni G, Sparicio D, Benussi S, Aletti G, Pappalardo F, et al. Predictors of atrial fibrillation after off-pump coronary artery bypass graft surgery. *J Cardiothorac Vasc Anesth* 2004; 18: 704-8. **Crossref**
4. Saxena A, Dinh DT, Smith JA, Shardey GC, Reid CM, Newcomb AE. Usefulness of postoperative atrial fibrillation as an independent predictor for worse early and late outcomes after isolated coronary artery bypass grafting (Multicenter Australian study of 19,497 patients). *Am J Cardiol* 2012; 109: 219-25. **Crossref**

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Kounis syndrome presenting with acute inferior wall myocardial infarction and cardiogenic shock secondary to intravenous ampicillin/sulbactam administration

To the Editor,

Kounis syndrome (KS) is induced by allergic and anaphylactic reaction, and is considered a rare cause of coronary artery spasm (1) A 44-year-old male patient was admitted to our center with complaint of severe chest pain lasting for 1 hour. He was administered treatment of 1 g intravenous ampicillin/sulbactam with diagnosis of upper respiratory tract infection. He did not have history of allergy or traditional risk factors for coronary artery disease. Ten minutes after the injection, he felt severe, squeezing retrosternal chest pain. On physical examination, he was pale. He did not have pruritus or rash. His blood pressure (BP) and heart rate were 77/48 mm Hg and 104 bpm, respectively.