

## Author's Reply

To the Editor,

We thank the authors for their valuable evaluation of our article entitled "Assessment of left atrial volume and mechanical functions using real-time three-dimensional echocardiography (RT3DE) in patients with mitral annular calcification" published in *Anatol J Cardiol* 2016; 16: 42-7 (1).

They showed that the diastolic functions of tissue Doppler imaging can be used in the evaluation of mitral annular calcification (2–3). No artifacts/noise was mentioned in that study, and in our patients, we did not experience any problems when evaluating the mitral annulus movements on tissue Doppler.

As stated by the author, in the comparison of the two groups with respect to cigarette smoking, a difference was seen originating from the two groups. We also wish to state that 7 subjects in the control group were smokers ( $p=0.337$ ). This mistake happened due to the spelling errors.

In the evaluation of diastolic functions, mitral valve velocities are evaluated proportionally. Just as a difference was seen between the study groups in E/Em or E/A as a marker of impaired diastolic function, that no difference was seen of Am between the two groups was not considered significant (4).

The max Left atrial volume index (LAVI) in the MAC patient group was found to be  $26.9\pm 6.1$  mL/m<sup>2</sup>, measured with RT3DE3. In the Guidelines for Left Ventricular Dysfunction (5), left atrial (LA) volumes are evaluated using different methods. In a study by Russo et al. (2), the LAVI max mL/m<sup>2</sup> value measured with RT3DE was found to be  $22.9\pm 5.9$  in normal individuals and  $22.7\pm 5.3$  in those with Grade 1,  $25.0\pm 10.9$  in those with Grade 2, and  $35.3\pm 11.5$  in those with Grade 3 diastolic dysfunction. The LAVI max mL/m<sup>2</sup> values of our study are compatible with these (3, 4).

Patients with suspected or diagnosed coronary artery disease were not included in our study. No diagnostic method was applied toward non-obstructive coronary artery disease. The main and primary objective of the study was to evaluate the diastolic parameters that could explain the reason for impaired left atrial function.

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## References

1. Bayramoğlu A, Taşolar H, Otlu YO, Hidayet S, Kurt F, Doğan A, et al. Assessment of left atrial volume and mechanical functions using real time three-dimensional echocardiography in patients with mitral annular calcification. *Anatol J Cardiol* 2016; 16: 42-7.
2. Russo C, Jin Z, Homma S, Rundek T, Elkind MS, Sacco RL, et al. Left atrial minimum volume and reservoir function as correlates of

left ventricular diastolic function: impact of left ventricular systolic function. *Heart* 2012; 98: 813-20. [Crossref]

3. Soeki T, Fukuda N, Shinohara H, Sakabe K, Onose Y, Sawada Y, et al. Mitral inflow and mitral annular motion velocities in patients with mitral annular calcification: evaluation by pulsed Doppler echocardiography and Pulsed Doppler tissue imaging. *Eur J Echocardiogr* 2002; 3: 128-34. [Crossref]
4. Paulus WJ, Tschöpe C, Sanderson JE, Rusconi C, Flachskampf FA, Rademakers FE, et al. How to diagnose diastolic heart failure: a consensus statement on the diagnosis of heart failure with normal left ventricular ejection fraction by the Heart Failure and Echocardiography Associations of the European Society of Cardiology. *Eur Heart J* 2007; 28: 2539-50. [Crossref]

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## Postoperative atrial fibrillation may be associated with other factors

To the Editor,

We have read with great interest the article titled "SYNTAX score predicts postoperative atrial fibrillation in patients undergoing on-pump isolated coronary artery bypass grafting surgery," which was written with a great interest by Geçmen et al. (1) and published in *Anatol J Cardiol* 2015 Nov 18 Epub ahead of print. The authors studied the association between SYNTAX (Sx) score and a new onset atrial fibrillation in patients who underwent on-pump isolated coronary artery bypass grafting surgery (CABG) and concluded that such a score may help in the prediction of postoperative atrial fibrillation (PoAF) in patients undergoing isolated on-pump CABG. We thank the authors for their contribution of the present study that highlights the relationship between Sx score and PoAF. We agree with the authors that the association between PoAF and Sx score may be explained by the differences in clinical, angiographic, and procedural characteristics. However, we have some concerns regarding the applicability of their findings. The association between the severity of coronary disease and atrial fibrillation is not surprising, but the authors did not explain in what way their findings may impact daily clinical practice. It is not clear whether the potential utility of the Sx score in predicting new onset atrial fibrillation will be of clinical interest. Moreover, their screening strategy was not ideal. Shorter episodes of AF were probably missed.

In a review by Lau et al. (2), several factors were reported to be associated with new-onset AF following multivariate analysis, including advanced age, higher Killip class or heart failure, hypotension, higher heart rate, history of hypertension, history of stroke, female gender, increased peak creatinine, and increased C-reactive protein levels. In addition, inflammation and active infection promote the release of cytokines and upregulation of Toll-like receptor-2 expression on monocytes, which may act as