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±6.1 mL/m^2, 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^2 value measured with RT3DE was found to be 22.9±5.9 in normal individuals and 22.7±5.3 in those with Grade 1, 25.0±10.9 in those with Grade 2, and 35.3±11.5 in those with Grade 3 diastolic dysfunction. The LAVI max mL/m^2 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.

Adil Bayramoğlu, Hakan Taşolar[1], Yılmaz Ömür Otlu[2]
Department of Cardiology, Faculty of Medicine, Ordu University; Ordu-*Turkey*
[1]Department of Cardiology, Training and Research Hospital; Adıyaman University, Adıyaman-*Turkey*
[2]Department of Cardiology, Kars State Hospital; Kars-*Turkey*

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]

Address for Correspondence: Dr. Hakan Taşolar
Adıyaman Üniversitesi Eğitim ve Araştırma Hastanesi
Kardiyoloji Anabilim Dalı; Adıyaman-*Türkiye*
Fax: +90 416 223 38 07 E-mail: hakantasolar@gmail.com

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

a trigger for PoAF (3, 4). In conclusion, these confounding factors will probably explain this association, but many of them were not taken into consideration in the analysis.

Ali Rıza Akyüz, Levent Korkmaz
Department of Cardiology, Trabzon Ahi Evren Cardiovascular and Thoracic Surgery Research and Application Center, Saglik Bilimleri University; Trabzon-*Turkey*

References

1. Geçmen Ç, 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. Lau DH, Alasady M, Brooks AG, Sanders P. New-onset atrial fibrillation and acute coronary syndrome. Expert Rev Cardiovasc Ther 2010; 8: 941-8. [Crossref]
3. Ichiki H, Orihara K, Hamasaki S, Ishida S, Oketani N, Iriki Y, et al. The role of infection in the development of non-valvular atrial fibrillation: up-regulation of Toll-like receptor 2 expression levels on monocytes. J Cardiol 2009; 53: 127-35. [Crossref]
4. Gedikli O, Örem C, Baykan M, Karahan C, Küçükosmanoğlu M, Şahin S, et al. Association between serum C-reactive protein elevation and atrial fibrillation after first anterior myocardial infarction. Clin Cardiol 2008; 31: 482-7. [Crossref]

Address for Correspondence: Dr. Ali Riza Akyüz
Sağlık Bilimleri Üniversitesi, Ahi Evren Göğüs ve Kalp Damar Cerrahisi Sağlık Uygulama ve Araştırma Merkezi ; Trabzon-*Türkiye*
Phone: +90 462 231 41 14 Fax: +90 462 231 24 20
E-mail: dralirizaakyuz@gmail.com

DOI:10.14744/AnatolJCardiol.2016.7084

Author`s Reply

To the Editor,

We are pleased with the authors' interest in our article titled "SYNTAX score predicts postoperative atrial fibrillation in patients undergoing on-pumping isolated coronary artery bypass grafting surgery," which was published in Anatol J Cardiol 2015 Nov 18 Epub ahead of print (1), and we would like to thank them for their contribution. As the authors have mentioned systemic inflammation caused by cardiopulmonary bypass, atrial inflammation might contribute to the occurrence of postoperative atrial fibrillation (PoAF). Bruins et al. (2) reported that an elevation in C-reactive protein-complement complexes was greater in patients who developed AF. Soluble vascular cell adhesion molecule-1 (VCAM-1) is an emerging biomarker for inflammation and endothelial activation. In another study, Verdejo et al. (3) reported that in patients undergoing coronary artery bypass surgery, elevated VCAM-1 levels predict a higher risk for PoAF. However, inflammatory markers were not included in our patient data, and we think that the patient population is too small to add these variables in the analysis. There would be too many variables for a small group, and this could disrupt the results. With the inclusion of these data, our hypothesis can be further tested in a bigger patient population.

Çetin Geçmen
Department of Cardiology, Kartal Koşuyolu Heart and Research Hospital; İstanbul-*Turkey*

References

1. Geçmen Ç, 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. Bruins P, te Velthuis H, Yazdanbakhsh AP, Jansen PG, van Hardevelt FW, de Beaumont EM, et al. Activation of the complement system during and after cardiopulmonary bypass surgery: postsurgery activation involves C-reactive protein and is associated with postoperative arrhythmia. Circulation 1997; 96: 3542-8. [Crossref]
3. Verdejo H, Roldan J, Garcia L, Del Campo A, Becerra E, Chiong M, et al. Systemic vascular cell adhesion molecule-1 predicts the occurrence of post-operative atrial fibrillation. Int J Cardiol 2011; 150: 270-6. [Crossref]

Address for Correspondence: Dr. Çetin Geçmen
Kartal Koşuyolu Kalp Araştırma Hastanesi, Kardiyoloji Bölümü
34846, Kartal; İstanbul-*Türkiye*
Fax: +90 216 500 15 00 E-mail: drcetingecmen@hotmail.com

Effects of energy drinks on blood pressure, heart rate, and electrocardiographic parameters: an experimental study on healthy young adults

To the Editor,

I have read the article entitled "Effects of energy drinks on blood pressure, heart rate, and electrocardiographic parameters: an experimental study on healthy young adults" by Hajsadeghi et al. (1), which was recently published in the Anatolian Journal of Cardiology 2016; 16: 94-9, with great interest. The investigators reported that energy drink consumption could contribute to heart rate decrease and ST-T changes in healthy young adults. In addition, systolic and diastolic BP and other ECG parameters do not significantly change after the energy drink consumption (1).

There were conflicting results about the relationship between heart rate response and energy drink consumption (2, 3). Authors implied that the possible mechanism underlying the heart rate decrease was related to an increase in the stroke volume and enhancement of the myocardial contractility after the energy drink consumption (1). Authors claimed that excessive catecholamine release after energy drink consumption is the mechanism underlying the significant ST-T changes (1). It is well known that heart rate