

Reply to Letter to the Editor: "Atrial Function Assessment in High-Risk Hypertrophic Cardiomyopathy"

To the Editor,

We are very grateful for your valuable comments and contributions to our study.¹ As you mentioned, it is difficult to say that the worsening of left atrial (LA) functions is secondary to the deterioration of left ventricular (LV) functions, based on the data in our study. However, in the study by Latif et al.² LV and LA fibrosis evaluated by cardiac magnetic resonance imaging (MRI) were found to be well correlated in hypertrophic cardiomyopathy (HCM) patients ($r=0.6$). In this study, it is claimed that the deterioration of LA functions may be secondary to the deterioration of LV functions, or that the involvement in both LA and LV is a progression of the same cardiomyopathic process of the disease. In light of this study, we think that the deterioration of LA functions may be secondary to the deterioration of LV functions. For more precise and clear information, new studies using cardiac MRI are needed.

As we mentioned in the discussion section of our study, global longitudinal peak strain (GLPS) was associated with appropriate shock in all risk and high-risk groups, while peak atrial longitudinal strain (PALS) was associated only in high-risk groups.

PALS is not a stand-alone risk factor in HCM patients but becomes more important in the presence of other risk factors (increased HCM risk score) and may cause arrhythmia (like female gender, which is a risk factor for stroke and embolism in atrial fibrillation (AF) patients).

In previous studies, impaired PALS was predictive of the development of AF in patients with HCM.³ However, since our aim in this study was not to investigate the predictors of AF development, it was not evaluated in this study. It would be more accurate to investigate it as the subject and purpose of another study.

In the studies you mentioned, LA strain values were found to be higher.⁴ However, the data in this study belong to normal healthy individuals. In the HCM patient population, the LA strain values in our study were found to be consistent with previous HCM studies.^{5,6}

REFERENCES

1. Candan Ö, Geçmen Ç, Kahyaoğlu M, et al. Left atrial dysfunction as marker of arrhythmic events in patients with hypertrophic cardiomyopathy. *Anatol J Cardiol*. 2022; 26(10):771-777. [CrossRef]
2. Latif SR, Nguyen VQ, Peters DC, et al. Left atrial fibrosis correlates with extent of left ventricular myocardial delayed enhancement and left ventricular strain in hypertrophic cardiomyopathy. *Int J Cardiovasc Imaging*. 2019;35(7):1309-1318. [CrossRef]
3. Debonnaire P, Joyce E, Hiemstra Y, et al. Left atrial size and function in hypertrophic cardiomyopathy patients and risk of new-onset atrial fibrillation. *Circ Arrhythm Electrophysiol*. 2017;10(2):e004052. [CrossRef]

LETTER TO THE EDITOR REPLY

Özkan Candan¹ 

Çetin Geçmen² 

Muzaffer Kahyaoğlu² 

Mehmet Çelik² 

Zeki Şimşek² 

Ferhat Dindaş¹ 

Mustafa Dođduş¹ 

Regayip Zehir² 

Cevat Kirma² 

¹Department of Cardiology, Faculty of Medicine, Uşak University, Uşak, Turkey

²Department of Cardiology, Kartal Koşuyolu Training and Research Hospital, İstanbul, Turkey

Corresponding author:

Özkan Candan

✉ oz_candan@hotmail.com

Cite this article as: Candan Ö, Geçmen Ç, Kahyaoğlu M, et al. Reply to letter to the editor: "Atrial function assessment in high-risk hypertrophic cardiomyopathy". *Anatol J Cardiol*. 2023;27(2):123-124.

DOI:10.14744/AnatolJCardiol.2022.2652



Copyright@Author(s) - Available online at anatoljcardiol.com.
Content of this journal is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

4. Sun BJ, Park JH, Lee M, et al. Normal reference values for left atrial strain and its determinants from a Large Korean multi-center registry. *J CardioVasc Imaging*. 2020;28(3):186-198. [\[CrossRef\]](#)
5. Essayagh B, Resseguier N, Michel N, et al. Left atrial dysfunction as marker of poor outcome in patients with hypertrophic cardiomyopathy. *Arch Cardiovasc Dis*. 2021;114(2):96-104. [\[CrossRef\]](#)
6. Vasquez N, Ostrander BT, Lu DY, et al. Low left atrial strain is associated With adverse outcomes in hypertrophic cardiomyopathy patients. *J Am Soc Echocardiogr*. 2019;32(5):593-603.e1. [\[CrossRef\]](#)