
Author`s Reply

To the Editor,

I thank the journal readers for their interest in our original article entitled "Tp-e interval and Tp-e/QTc ratio as novel surrogate markers for prediction of ventricular arrhythmic events in hypertrophic cardiomyopathy" recently published in The Ana-

tolian Journal of Cardiology 2017 Mar 9. Epub ahead of print (1).

Hypertrophic cardiomyopathy (HCM), a common genetic heart disease characterized by ventricular hypertrophy, impaired ventricular relaxation, and myocardial fibrosis, is significantly associated with a higher risk of fatal ventricular arrhythmic events (2). HCM is a leading cause of sudden cardiac death (SCD) in young adults (3). Current 2014 European Society of Cardiology (ESC) guidelines on the diagnosis and management of HCM recommend a prophylactic implantable cardioverter defibrillator (ICD) therapy for the primary prevention of SCD in high-risk patients based on age, unexplained syncope, family history of SCD, maximum left ventricular wall thickness (LVWT), maximum left ventricular outflow (LVOT) gradient, left atrial size, and non-sustained ventricular tachycardia (NSVT) during 24–48-h Holter monitoring at or prior to evaluation (2, 3). Other than these variables, Kang et al. (4) have recently demonstrated that the presence of a fragmented QRS complex (fQRS) on 12-lead electrocardiography (ECG) is significantly associated with a higher risk of fatal ventricular arrhythmia events (VAEs), including NSVT, VT, and SCD in patients with HCM. Similarly, in our study we observed that prolonged Tp-e interval and increased Tp-e/QTc ratio are independent predictors of VAEs in patients with HCM (1). The Tp-e interval (the interval between the peak and end of the T wave on ECG) is described as an index of total dispersion of ventricular repolarization, and a longer Tp-e interval has been found to be related to arrhythmias and mortality (5). Although the Tp-e interval is affected by the heart rate and body surface area, the Tp-e/QTc ratio is represented as a more accurate index of VR (6). Recent studies have confirmed that these simple ECG parameters, including the Tp-e interval, Tp-e/QTc ratio, and fQRS, are very useful tools for predicting adverse cardiac events (4, 5). Therefore, I believe that these parameters will be used to a larger extent in clinical practice in the future.

In conclusion, if these findings are confirmed via further and larger prospective trials, these easily available ECG parameters such as the Tp-e interval, Tp-e/QTc ratio, and fQRS could be included in the HCM Risk-SCD Formula to more precisely assess the risk stratification in patients with HCM who are eligible for primary prophylactic ICD.

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