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Author`s Reply

To the Editor,

Thank you very much for evaluating our article "Assessment of the relationship between the ambulatory electrocardiography-based micro T-wave alternans and the predicted risk score of sudden cardiac death at 5 years in patients with hypertrophic cardiomyopathy" (1).

In the letter, the authors have mentioned that the evaluation of MTWA under β-blocker therapy might be wrong. However, as we stated in the Methodology section of the paper, and as mentioned below:

When including patients in the study in question, we paid attention to include patients who were newly diagnosed, or who did not receive any previous treatment or intervention because each process could alter the calculated 5-year risk of sudden cardiac death (the HCM risk-SCD). There was a special outpatient clinic that evaluates only patients with hypertrophic cardiomyopathy (HCM). Newly diagnosed patients with HCM from some other hospital were referred to the outpatient clinic for further investigations. Thus, we initiated drugs like β-blockers when all evaluations, including electrocardiography, holter electrocardiography, and echocardiography were completed and after the HCM risk-SCD was calculated (1). Therefore, under β-blockers or the other therapies did not affect the MTWA values. If Table 1 caused confusion, herein we expressed the overall demographics of all patients who we evaluated for MTWA during 31.7±12.7 months and included the treatment administered during this period.

Echocardiography of the patients was performed in the first evaluation and was repeated with 3 month intervals. If evaluating with echocardiography was inadequate, we used cardiac magnetic resonance imaging. Therefore, we did not think that we might have disregarded patients with apical aneurysms. Apical aneurysms are thought to be usually developed secondary to long-term contraction against the gradient in mid-ventricular obstructive hypertrophic cardiomyopathy, which is generally a rare form of cardiomyopathy. Maron et al. (2) identified left ventricular apical aneurysms (LVAA) in 28 (2.2%) of 1299 patients included in their study, and their mean age was 52±13. Rowin et al. (3) LVAAs in 93 (4.8%) of 1940 consecutive HCM patients with a mean age of 56±13 years. The number of our patients was lower than the other two studies mentioned. The mean age of our patients was 46.6±15.2 years. As observed in both studies, association of HCM and apical aneurysms is different in percentages. There is no precise information about the incidence of apical aneurysms in HCM patients.

In the literature, cutoff value for MTWA has usually been taken as 60. As the cutoff value used by us was 65, which was very close to this value and the value that we have used in our previous study (4).

MADIT II study is an old study, in which data were collected between 1996 and 2003. Patients with heart failure who had left ventricular ejection fraction (LVEF) of 40% or less were included in the study (5). Similarly, in the MASTER study that was published in 2008 patients who had a prior myocardial infarction and LVEF ≤30% were included (6). Unlike these two studies, only HCM patients with average LVEF 66.6±7.1 were included in our study. The patient group of our study is completely different from that of these studies, and it is not appropriate to compare these studies. Furthermore, science is constantly changing and renewing itself over the years. Up until now, many studies have shown that there is a relationship between sudden cardiac death or ventricular arrhythmic events, MTWA positivity (7-9).

We again evaluated whether the variables compared between the positive and negative micro T-wave alternans groups were parametric or non-parametric. Normality of the variables was assessed using visual (histograms, probability plots, values of skewness, and kurtosis) and analytical methods (Kolmogorov–Smirnov). No change was found in the statistical results compared with the previous values.

After the parametric and non-parametric evaluation, we performed Spearman and Pearson tests for the correlation. The odds ratio confidence interval for MTWA was greater than 1 for both univariate (18.091–195.030) and multivariate (13.685-464.687) analysis. Therefore, MTWA's confidence interval, which is >1, shows that MTWA positivity has an enhancing effect on risk determinants for the HCM Risk-SCD. Since the 10 parameters specified in the logistic regression analysis could affect the HCM risk-SCD value, these parameters were used to find the independent factor. We believe that our study is adequate and strong in terms of statistical analysis.

In conclusion, absence of LVAA in our patients might be associated with low average age and short follow-up duration. This is supported with high incidence of arrhythmias and thromboembolic events leading to sudden death with LVAA and lack of these complications in our patients. In addition, we believe that our sampling, study methodology, and selection of the cutoff value were consistent with the previous studies.

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Non-ergot dopamine agonists and heart failure

To the Editor,

We have read with great interest the article published by Erken Pamukcu et al. (1) about the effects of different non-ergot dopamine agonists on cardiac functions in patients with Parkinson's disease. Authors demonstrated that non-ergot dopamine agonists, ropirinole and pramipexole, are safe drugs for cardiac systolic and diastolic functions (1).

There are conflicting data regarding the relationship between non-ergot dopamine agonists and heart failure. FDA released a safety concern because of a possible association between non-ergot dopamine agonists and increased heart failure incidence in 2012. These concerns were the result of observational studies, after which randomized controlled studies were designed and non-ergot dopamine agonists were established as safe drugs for cardiovascular system. In the current era, although previous studies have suggested that non-ergot dopamine agonists are related to increased heart failure incidence, recent studies and meta-analyses have shown no such significant relationship and have reported that non-dopamine agonists can be safely used in patients with heart failure (2).

Heart failure is classified according to systolic functions, and heart failure with preserved ejection fraction (HFpEF) is diagnosed by the presence of symptoms related to heart failure and elevated BNP levels (3). In this study, non-dopamine agonists did not cause deleterious changes in the echocardiographic systolic and diastolic parameters; however, it is difficult to implicate that these drugs do not cause heart failure by the lights of these results. We believe that it would be better if BNP levels were measured and patients were questioned for symptoms of heart failure so as to reveal the association between heart failure and non-dopamine agonists.

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