

LETTERS TO THE EDITOR

Inquiries about Tpe and ventricular arrhythmias in patients with takotsubo syndrome.



To the Editor:

Vazirani and colleagues¹ reported on the advantages of the employment of the T-wave peak–end (Tpe) interval uncorrected and corrected for heart rate, over the traditional QT interval corrected for heart rate, using Bazett's formula, as a predictor of ventricular arrhythmias (VAs) (monomorphic and polymorphic ventricular tachycardia and ventricular fibrillation) in patients with takotsubo syndrome (TTS), based on the data from the RETAKO (REgistro nacional multicéntrico sobre síndrome de TAKOsubo) registry. The authors also found that the precordial lead–derived longest Tpe may be an easier and more reliable marker than the QT interval corrected for heart rate, for the prediction of VAs in TTS. Because the study included only 13 patients, the authors' findings need to be corroborated by larger cohorts. I will appreciate a response to the following: (1) the study employed only the first electrocardiogram for Tpe measurements, and evaluation of subsequent hospital and follow-up electrocardiograms may be of value for short- and long-term VA prediction; (2) because typical or atypical TTS left ventricular morphological variants were encountered, one wonders whether Tpe was different in these 2 variants; (3) while the authors refer to monomorphic ventricular tachycardia and focal gadolinium enhancements, it may be of value to also refer to the presence and degree of myocardial edema and Tpe^{2,3}; and (4) the greater prevalence of ST-segment elevation in the control group may point to a later hospital presentation of the patients with VA.

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References

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Reply to the Editor: Inquiries about Tpe and ventricular arrhythmias in patients with takotsubo syndrome



To the Editor:

The comments regarding repolarization parameters and ventricular arrhythmias¹ in the RETAKO (REgistro nacional multicéntrico sobre síndrome de TAKOsubo) registry² are welcome. We proceed to address the raised issues.

First, we used the first electrocardiogram (ECG), as few patients had long-term ECG recordings available.³ Further studies are needed to assess the value of T-wave peak–end measurements in takotsubo syndrome as a marker of long-term ventricular arrhythmogenesis, similar to what has been observed in hypertrophic cardiomyopathy.⁴ Second, the repolarization appears more altered in typical forms, possibly due to the presence of more extensive ventricular segmental abnormalities, resulting in a trend toward longer corrected QT and T-wave peak–end intervals in precordials that did not reach statistical significance. Additionally, no relevant differences were observed in limb leads. Third, cardiac magnetic resonance imaging was not available for most patients. We hope to include more parameters in our registry in the future to address this and other questions. Fourth, when analyzing the time from symptom onset to diagnosis in cases with arrhythmia, we observed a longer duration compared with controls (41.50 ± 68 hours vs 12.18 ± 24.81 hours; $P < .001$). This could potentially influence the higher prevalence of ST-segment elevation in the control group, as this ECG finding tends to occur later in the presentation.⁵

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