

First, our main purpose was to evaluate the association of repolarization dispersion represented by Tp-e interval with ventricular arrhythmic events (VAEs) in patients with hypertrophic cardiomyopathy (HCM). QTc duration derived by applying Bazett's formula has been already reported to be associated with VAEs in HCM (2). Second, because we designed this study according to the current 2014 European Society of Cardiology guidelines on diagnosis and management of HCM, non-sustained ventricular tachycardia (three or more consecutive ventricular extra systoles at a rate of ≥ 120 beats/min, terminating spontaneously within 30 s) was defined as VAEs detected by holter monitoring or implantable cardioverter defibrillator (ICD) together with sustained ventricular tachycardia (>30 sec or hemodynamic collapse) (3). Third, unfortunately, as population of our study is relatively small, we did not perform subgroup analysis for patients with ICD concerning VAEs. Fourth, inter- and intra-observer coefficients of variation in our study were 3.2% and 2.8%, respectively. Fifth, as we mentioned in the method section of our article, normally distributed variables were represented as mean \pm standard deviation including Tp-e interval in Table 1. Therefore, Pearson correlation test was used to indicate the correlation of maximal left ventricular thickness with Tp-e interval and Tp-e/QTc ratio. Finally, it is difficult to make a final decision according to our hypothesis-generating study with relatively limited study population. Hence, these findings need to be confirmed in further and larger prospective multicenter trials. Thereafter, these parameters may be used more in clinical practice for predicting VAEs in HCM.

Conflicts of interest: The author has no conflicts of interest to disclose.

Mehmet Kadri Akboğa
Department of Cardiology, Türkiye Yüksek İhtisas Training and Research Hospital, Ankara-Turkey

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Address for Correspondence: Dr. Mehmet Kadri Akboğa
Türkiye Yüksek İhtisas Eğitim ve Araştırma Hastanesi
Kardiyoloji Bölümü, Ankara-Türkiye
Phone: +90 312 306 11 34
E-mail: mkakboga@yahoo.com

Who are the main actors of cardiac device follow-up? Analysis of the super follow-up study

To the Editor,

We read with great interest the excellent paper titled "Should physicians instead of industry representatives be the main actor of cardiac implantable electronic device follow-up? (Super Follow-up)" by Üreyen et al. (1) recently published in the *Anatolian Journal of Cardiology* 2017; 18: 23-30. The authors presented their work on the role of proper cardiac device follow-up performed by cardiologists. They commented that the errors made by representatives of industries are higher than expected—an interesting finding.

Although the study conducted by Üreyen et al. (1) is very beneficial to health professionals and individuals alike, some points warrant mention:

1. Üreyen et al. (1) did not mention the role of AF detection algorithms (automatic mode switches) to assess whether such patients were in need of anticoagulation. According to the literature, greater than 5–6 min spent in AF is an important predictor of stroke, with such patients in need of anticoagulation therapy based on CHADS2 or CHA2DS2VasC scores (2). Industry representatives may not be aware of indications for stroke prevention in patients with cardiac devices, a limitation that can leave patients at risk. Hence, responsibility of device follow-ups have to be taken by physicians only.

2. The role of industry representatives is very crucial. Physicians work in tandem with industry representatives and without their efforts, physician's quality of care would be reduced. However, due to technological improvements, it is becoming harder for physicians to acclimate themselves with improved medical technologies. During my fellowship training in Canada, there were some patients who required an industry representative to be present alongside the physician. For instance, there was a patient with inappropriate device treatments due to T-wave oversensing, which was resolved after decay delay adjustment (3). As cardiac electrophysiologists in North America, we are not allowed to change decay delay parameters in ICD patients without industry technical support.

3. Üreyen et al. (1) stated that cardiac implantable electronic devices (CIEDs) should be followed by medical doctors instead of industry representatives alone. We think that Üreyen et al. (1) meant that the efforts of cardiac rhythm device clinic specialists, including cardiac electrophysiologists and specialized trained device technicians (nurses), should be in tandem to provide patient care.

4. One of the overlooked issues is to assess percentage of biventricular pacing in patients with CRT. It is unreliable to de-

termine this percentage according to the device calculation. Because device will show total percentage of both RV and LV pacing (only one manufacture shows RV and LV separately), however only 12-lead ECG will ensure biventricular pacing. As far as we know that industry representatives do not check 12-lead ECG in patients with CRT during the interrogation. This issue needs to be solved only by cardiac electrophysiologists and/or device specialists.

5. Another unmentioned issue is device recalls. Unfortunately, device recalls and advisories are not taken seriously in our country. Both companies and physicians should act together and keep the patients informed regarding device recalls (4).

Finally, we would like to provide solutions to improve device follow-up in developing countries:

a) Specialists specializing in rhythm disorders: Unfortunately, in developing countries, there are no fellowship programs; however, in North America (USA and Canada) and European countries, cardiac electrophysiology training (1–2 years) is essential to perform in- and outpatient arrhythmia service.

b) Dedicated Cardiac Rhythm and Device Management clinics (electrophysiologists and/or device technicians)

c) Implantation of more technologically advanced devices is also very useful because it will improve follow-up of patients with pacemakers and ICD/CRTD. Due to economic issues in developing countries, there are still big public centers that implant basic devices instead of new, smarter, MRI-compatible devices.

d) Trainings and educational courses offered by companies to health-care workers may prove invaluable.

In conclusion, we congratulate Üreyen et al. (1) for their insightful study. As a cardiac electrophysiologist trained in Canada, I am proud of my colleagues that they increased awareness of this important issue.

Enes Elvin Gül
Heart Rhythm Service, Department of Cardiology, İstanbul Medicine Hospital, İstanbul-Turkey

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Address for Correspondence: Dr. Enes Elvin Gül

Kalp Ritim Servisi, Kardiyoloji Bölümü

İstanbul Tıp Hastanesi

İstanbul-Türkiye

E-mail: elvin_salamov@yahoo.com

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Author's Reply

To the Editor,

We would like to thank to the authors for commenting on our article titled "Should Physicians Instead of Industry Representatives Be The Main Actor of Cardiac Implantable Electronic Device Follow-up?" for their valuable and beneficial contributions (1).

Firstly, the authors emphasized the importance of AF detection algorithms to preclude AF-related embolic complications in patients with high CHA2DS2VASc score. Moreover, they mentioned that industry representatives may not be aware of indications for stroke prevention in patients with cardiac devices and paroxysmal AF, a limitation that can leave patients at risk. In our study, we only evaluated the efficiency of cardiac implantable electronic device (CIED) programming and follow-up by industry representatives. Industry representatives are not supposed to have clinical knowledge (as CHA2DS2VASc score and stroke risk) during their follow-up. On the other hand, this excellent example stated by the authors again demonstrates why industry representatives alone should not follow-up the patients with CIEDs because not only the CIEDs but also the patients should be assessed together.

The authors mentioned that it is not always easy to follow the technological improvements in CIEDs; thus, collaboration among physicians and industry representatives gains more importance. As we emphasized in our article, the role of industry representatives is to provide technical support to the implant as well as technical assistance of their companies' programmers in the follow-up clinics. Furthermore, we also emphasized in our article that follow-up of patients with CIEDs should be performed by physicians or a team including physicians and clinically employed allied professionals. On the other hand, as we mentioned in the article, it is not acceptable to allow industry representatives alone to follow-up patients with CIEDs.

We agree with the authors to act together and keep the patients informed regarding device recalls. Moreover, we thank the authors for their smart and educatory recommendations to improve device follow-up in developing countries.

Çağın Mustafa Üreyen
Department of Cardiology, Antalya Education and Research Hospital, Antalya-Turkey