

Letter to the Editor Concerning the Article: Husniye Baser, Nihal Akar Bayram, Burcak Polat, Berna Evranos, Reyhan Ersoy, Engin Bozkurt, Bekir Cakir. The Evaluation of QT Intervals During Diagnosis and After Follow-Up in Acromegaly Patients. Acta Med Port 2014;27:428-32.

Keywords: Acromegaly; Arrhythmias, Cardiac; Electrocardiography; Heart Rate.

Palavras-chave: Acromegalia; Arritmias Cardíacas; Electrocardiografia; Frequência Cardíaca.

Dear Editor,

We have read the article by Baser H et al¹ with great interest. We thank our colleagues for highlighting the mechanism of arrhythmia in acromegaly patients via the evaluation of QT intervals during diagnosis and after follow up. They have demonstrated that acromegaly patients had longer baseline QT max, QT dispersion, QTc max and QTc dispersion when compared to controls. Additionally, post follow-up QTc max and QTc dispersion have been found to be significantly shorter, compared to baseline values and no significant difference was present between patients' post follow-up values of QT and those of controls. These findings are quite meaningful in terms of demonstrating the arrhythmogenic potential in patients with acromegaly. It has been shown that severity of the ventricular arrhythmia

is correlated with left ventricular hypertrophy,² however the effect of decreased left ventricular mass either on ventricular functions or prevalence of ventricular arrhythmia still remains unclarified. While increased cardiovascular mortality is attributed to interstitial fibrosis and myocardial hypertrophy³ the association between left ventricular mass and arrhythmia awaits as a point to be elucidated. In this context echocardiographic evaluation of the patients before and after treatment would be illuminative. Demonstration of the decrease in left ventricular mass index after treatment would clarify this possible association. The outcomes about pathophysiology of increased cardiovascular mortality in acromegaly patients are still controversial because while severity of ventricular arrhythmia is thought to be associated with left ventricular hypertrophy it has also been shown that QTc decreased although no significant change was present in left ventricle volumes after the treatment.⁴ Myocardial hypertrophy and interstitial fibrosis are thought to be culprit mechanisms for adverse cardiovascular events and in the light of these studies it is clear that acromegaly patients are potentially arrhythmogenic but the point whether these are rings of a chain or they act via different mechanisms is questionable. In this study assessment of left ventricular wall thickness and preferably left ventricular volume index before and after treatment could highlight the pathophysiological pathway.

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Dear Editor,

First of all, I want to thank Karagoz et al for their valuable contribution. It is well established that cardiac rhythm abnormalities are clinically important in acromegaly patients since they can affect quality of life and even cause mortality. The determination of clinical predictors of cardiac

arrhythmias is important in patients with acromegaly. Severity of the ventricular arrhythmia is correlated with left ventricular hypertrophy.¹ QT intervals, especially corrected QT (QTc), are presumed as the markers of increased cardiovascular risk and provide important prognostic information in clinical practice.² Myocardial interstitial fibrous tissue proliferation due to GH and IGF-1 excess is thought to be the most important factor in arrhythmia in patients with acromegaly. Normalization of serum IGF-1 and GH levels can decrease increased left ventricular mass. However, Fatti et al detected no correlation between GH and IGF-1 levels, and pre- and post-treatment QTc intervals.³ In consistent with Fatti et al, Unubol et al observed no correlation between GH and IGF-1, and QTc dispersion.⁴

In normal healthy population, QT interval is correlated with left ventricular mass. Prolongation of QT interval in acromegaly patients can be an indirect marker of cardiac hypertrophy. In our study we demonstrated that baseline

QT max, QT dispersion, QTc max and QTc dispersion of acromegaly patients were significantly longer, compared with those of controls and post follow-up QTc max and QTc dispersion were significantly shorter compared to baseline values. Correlation between baseline and post follow up QT intervals and echocardiographic parameters was not

evaluated in this study. We accept that as a limitation of our study. We believe that further studies evaluating QT intervals and echocardiographic findings together would be beneficial in assessment of cardiovascular risks in patients with acromegaly.

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