



LETTER TO THE EDITOR

Pacemaker electrocardiogram in a patient with Takotsubo syndrome



Eletrocardiograma num doente com síndrome de Takotsubo e *pacemaker*

To the Editor:

The article by Núñez-Gil et al.,¹ published online ahead of print on March 31, 2015 in the *Journal*, describes a 73-year-old woman, with a previously implanted VVIR permanent pacemaker for the management of sick sinus/bradycardia-tachycardia syndrome, who suffered an episode of Takotsubo syndrome (TTS). The authors provided eight serial electrocardiograms (ECGs), commencing with an ECG recorded prior to the admission with TTS, and ending with an ECG acquired at follow-up 16 months later.¹ Recently a new ECG correlate of TTS was reported,² characterized by transient low voltage QRS complexes (LVQRS) and transient attenuation of the amplitude of the QRS complexes (AQRS), involving all or various sets of ECG leads. However in the present study only ECG leads V1–V6 were reported, but often LVQRS and AQRS with TTS are detected only in the limb leads. Indeed the ECG limb leads are more reflective of TTS involving the apical myocardium (as in the present case), representing the frontal plane or the longitudinalcardiac

axis, rather than the precordial leads, which reflect the electrophysiological changes at the cross-sectional plane. It would be appreciated if the authors could provide data on the ECG limb leads of their patient. The transient LVQRS and AQRS are attributed to myocardial edema in patients with TTS,² and involve the ECG in the presence of both intrinsic ventricular activity and with permanent pacemaker.

Conflicts of interest

The author has no conflicts of interest to declare.

References

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2. Madias JE. Transient attenuation of the amplitude of the QRS complexes in the diagnosis of Takotsubo syndrome. *Eur Heart J Acute Cardiovasc Care.* 2014;3:28–36.

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