

Electrocardiogram in anterior mid-ventricular Takotsubo syndrome variant

John E. Madias^{1,2,*}

¹ Icahn School of Medicine at Mount Sinai, New York, NY, USA;

² Division of Cardiology, Elmhurst Hospital Center, Elmhurst, NY, USA.

To the Editor:

I enjoyed reading the report by Demirelli *et al.*, published in the May, 2015 issue of the *Intractable & Rare Diseases Research*, pertaining to a 59 year old woman with emotional stress-induced anterior mid-ventricular Takotsubo syndrome (TTS) variant (1). The authors described the electrocardiogram (ECG) as showing T-wave inversions (TWI) in leads V1-V4. A recent paper reported an ECG correlate of TTS consisting of transient low voltage QRS (LVQRS) complexes (2). These ECG changes have been attributed to TTS-induced myocardial edema (ME), as detected by cardiac magnetic resonance imaging (cMRI) (2). Also TWI has been attributed to apicobasal ME gradient, as detected by cMRI (3). The present patient had a cMRI 4 weeks after her discharge, which confirmed the absence of chronic scar changes, compatible with TTS, but such late cMRI would not be suitable for the detection of ME, an early feature of TTS. Transient LVQRS often impacts the limb ECG leads (2), while affects leads I and aVL in patients with the midventricular TTS variant (4,5). Did this patient show transient LVQRS in the V1-V4 leads, which showed TWI? Also if serial ECGs were recorded, and if there was an ECG of this patient recorded prior to her admission with TTS, and at her 4 week follow-up, were there any transient LVQRS ECG changes, and in which leads?

References

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*Address correspondence to:

John E. Madias, MD, FACC, FAHA, Division of Cardiology, Elmhurst Hospital Center, 79-01 Broadway, Elmhurst, NY 11373, USA.

E-mail: madiasj@nychhc.org