

## ECG Contest

# Response to ECG, January 2017



## Respuesta al ECG de enero de 2017

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The patient had regular tachycardia with a QRS of 120 ms, right superior axis, and right bundle branch blockage; the postcardioversion electrocardiogram is shown in the [Figure](#). Based on the previous infarction, morphological criteria, and right superior axis, supraventricular tachycardias can largely be ruled out (responses 1 and 3). Patients with previous infarction and septal involvement can show ventricular tachycardias with a relatively narrow QRS due to invasion of the His-Purkinje system.<sup>1</sup> Although the same history makes posterior fascicular tachycardia unlikely, an electrophysiological study is required for their differentiation (response 2). In this study, tachycardia was induced, similar to the clinical tachycardia, by intramyocardial reentry related to an inferoposterior septal scar, with a septal exit close to the left branch of the bundle of His (response 4). The mechanism was confirmed by the success of the ablation.

Clinical practice guidelines recommend defibrillator implantation in patients with ventricular tachycardia and previous infarction.<sup>2</sup> In some patients, an electrophysiological study can be useful to clarify mechanisms that would respond to ablation.

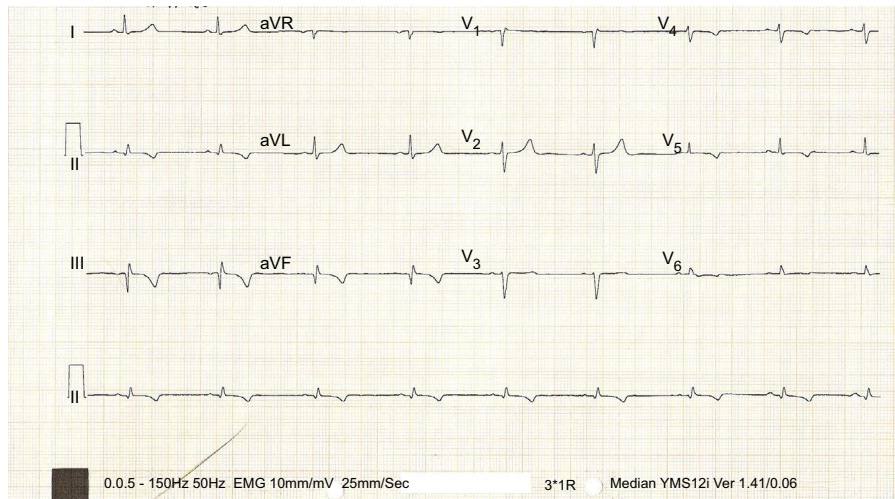


Figure.

## REFERENCES

1. Abello MS, Merino JL, Peinado R, et al. Post-infarction ventricular tachycardia with a QRS complex narrower than 140 ms: characterization and catheter ablation. *Rev Esp Cardiol.* 2007;60:441-444.
2. Priori SG, Blomström-Lundqvist C, Mazzanti A, et al. 2015 ESC Guidelines for the Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death. *Rev Esp Cardiol.* 2016;69:176.

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