ECG Contest

Response to ECG, April 2017

Respuesta al ECG de abril de 2017

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The correct response is number 4. The ECG shows a slow rise of the initial upstroke of the QRS complex, with a Q wave > 40 ms in lead aVR, a monophasic R wave in lead V1, and an S pattern in lead V6; together with the patient’s disease profile, these findings are strong indicators of monomorphic ventricular tachycardia due to myocardial reentry (response 1, Figure 1). Moreover, the ECG findings almost certainly exclude nodal reentrant tachycardia with right bundle branch block or monomorphic ventricular tachycardia due to bundle branch reentry (responses 2 and 3).

In the ECG, the polarity of the slow rise of the initial upstroke of the QRS complex was positive in leads V1 to V3 and the inferior leads and negative in lead I, a pattern compatible with a preexcited tachycardia via a left lateral accessory pathway (response 4). The sinus rhythm ECG (Figure 2) shows a heartbeat with no initial Q wave in V6 and no initial R wave in V1, indicating the presence of preexcitation. During electrophysiological analysis, stimulation from the distal coronary sinus reproduced the tachycardia morphology (Figure 3). A 1:1 conduction perimidal atrial flutter equivalent to the clinical tachycardia was induced via a left lateral accessory pathway. Both arrhythmias were successfully ablated.

Figure 1.

Figure 2.

Figure 3.

REFERENCES


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