

ECG Contest

Response to ECG, April 2018



Respuesta al ECG de abril de 2018

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An initial R wave in aVR is a diagnostic criterion for ventricular tachycardia¹ (response 1 incorrect). A QRS:P ratio of 1:1 is observed (more visible in aVL and V₁); this is typical of supraventricular tachycardias, but more than 30% of ventricular tachycardias can show ventriculoatrial (VA) conduction² (response 2 incorrect). Although the tachycardia did not resolve with amiodarone administration, retrograde conduction was reduced. Moreover, a VA ratio of 2:1 is observed in the rhythm strips (recorded after drug administration) (Figure 1, upper strip; P waves are marked with red circles) or occasional VA conduction (Figure 1, lower strip). The presence of more QRS than P waves practically confirms diagnosis of ventricular tachycardia (response 3 correct), supported already by the patient's history and QRS morphology in the ECG. The first electrical cardioversion of 100 J was not effective (response 4 incorrect) but a second discharge of 150 J did lead to resolution (Figure 1). Figure 2 shows the ECG after cardioversion.

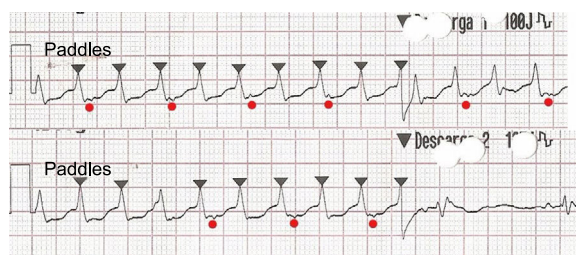


Figure 1.

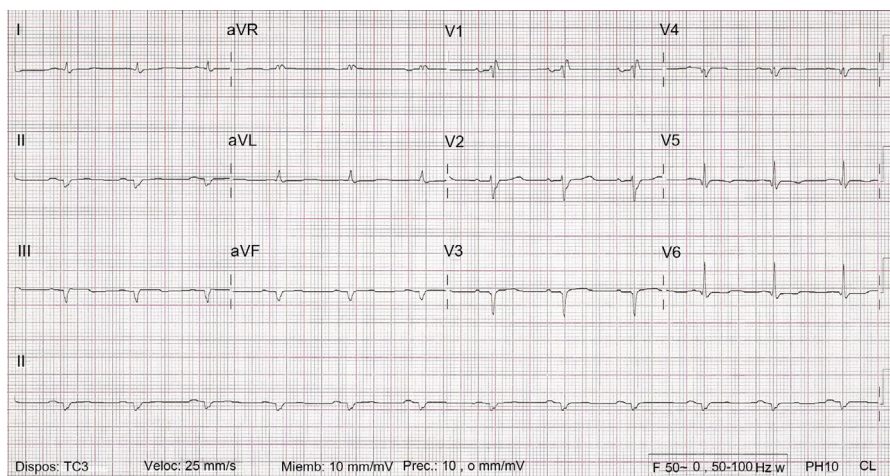


Figure 2.

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2. Wellens HJ, Bar FW, Lie KI. The value of the electrocardiogram in the differential diagnosis of a tachycardia with a widened QRS complex. *Am J Med*. 1978;64:27–33.

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