ECG Contest

Response to ECG, March 2020

Respuesta al ECG de marzo de 2020

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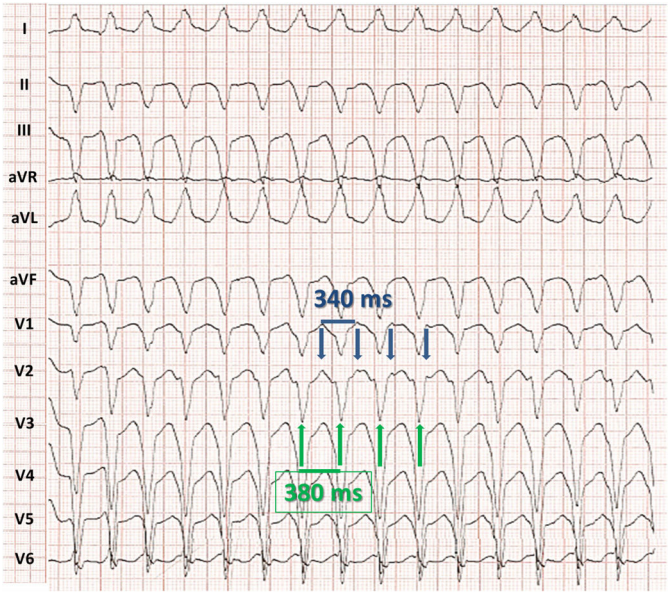

Figure 1.

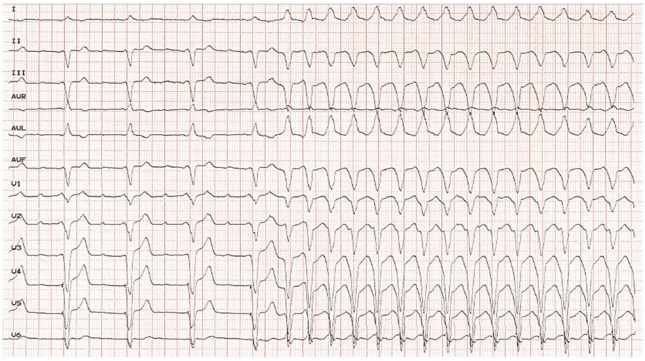

Figure 2.

Several criteria can be used to support diagnosis of ventricular tachycardia and rule out aberrant supraventricular tachycardia: the presence of atrioventricular (AV) dissociation (evident in V_1), RS > 100 ms in precordial leads,[1] and Q wave > 40 ms in aVR[2] (response 1, incorrect). Likewise, the presence of AV dissociation rules out antidromic tachycardia (response 2, incorrect). Analysis of the duration of the atrial activity cycle in V_1 (figure 1, blue arrows) shows that this is shorter than the ventricular activity (green arrows), thus ruling out the possibility that atrial activity is due to retrograde ventriculoatrial conduction (response 3, incorrect). Therefore, the correct answer is number 4. As shown in figure 2, the patient's baseline rhythm is atrial flutter of typical appearance, with paced QRS and onset of an episode of ventricular tachycardia after the fourth paced beat. This confirms that 2 tachycardias are present, a typical flutter and sustained monomorphic ventricular tachycardia.

REFERENCES

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2. Vereckei A, Duray G, Szénási G, Altemose GT, Miller JM. New algorithm using only lead aVR for the differential diagnosis of wide QRS complex tachycardia. *Heart Rhythm.* 2008;5:89–98.

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