ECG Contest

Response to ECG, June 2020

Respuesta al ECG de junio de 2020

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If the problem were ventricular pacing alternating with atrial pacing, the QRS morphology would be the same as in DDD pacing (response 1 incorrect).

The atrial spike could be followed by intermittent ventricular activation via an inferoseptal or right midseptal accessory pathway. Ventricular activation begins immediately after the atrial spike, indicating that there is no conduction from the site of the atrial lead (right atrial appendage) to the supposed accessory pathway (response 2 incorrect).

Response 4 is incorrect because the floating atrial lead should pace the atrium in one beat and the ventricle in the following one, leading to a more horizontal QRS axis and a more inferoseptal basal origin. Moreover, pacing from the inferoseptal region would lead to negative P-waves in the inferior leads and positive P-waves in V1.

The correct answer is response 3. According to a recent algorithm, the ventricular extrasystoles have an inferoseptal basal origin,[1] consistent with the areas of scarring in the patient.

REFERENCE

1. Andreu D, Fernández-Armenta J, Acosta J. A QRS axis-based algorithm to identify the origin of scar-related ventricular tachycardia in the 17-segment American Heart Association model. *Heart Rhythm.* 2018;15:1491–1497.

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