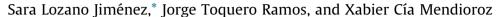
ECG Contest

Response to ECG, April 2020

Respuesta al ECG de abril de 2020



Servicio de Cardiología, Hospital Universitario Puerta de Hierro, Majadahonda, Madrid, Spain



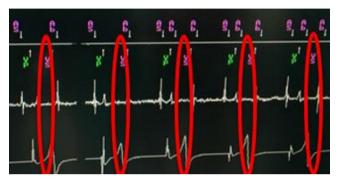


Figure 1.

The correct answer is option 1. On observing the device (figure 1: upper trace, pacing channel; middle trace, atrial electrogram; lower trace, ventricular electrogram), T-wave oversensing can be seen (ovals). This affects detection of the following intrinsic atrial activity in the blanking period (Ab), which is not followed by ventricular pacing.¹

Atrial activity corresponds to sinus rhythm at 90 bpm, with occasional far-field ventricular sensing (Ab intercalated between As and Ab from the third complex onwards), not to atrial tachycardia (response 2 incorrect).²

There is no progressive lengthening of the atrioventricular signal prior to the onset of slow frequencies, and Wenckebach behavior at this frequency would not be expected (response 3 incorrect).²

There is no sinus tachycardia that could lead to capture of every other P wave within the postventricular atrial refractory period (response 4 incorrect).²

Reductions were implemented in ventricular sensitivity (avoiding T-wave oversensing) and atrial sensitivity (avoiding far-field sensing), thereby resolving both problems.

REFERENCES

- 1. Barold SS. Complications of Pacemaker Implantation and Troubleshooting, In: Singer I, ed. Interventional Electrophysiology, Williams & Wilkins; 1997:935–1054.
- 2. Levine PA, Love CJ. Pacemaker diagnostics and evaluation of pacing system malfunction. In: Clinical Cardiac Pacing and Defibrillation. 2nd ed. WB Saunders; 2000:827–875.

SEE RELATED CONTENT:

https://doi.org/10.1016/j.rec.2019.10.017

* Corresponding author:

E-mail address: sara12s@hotmail.com (S. Lozano Jiménez).