

ECG Contest

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A 75-year-old man was referred to the emergency room with symptoms of dizziness and poor pacemaker function after the ECG shown in the [Figure](#) was recorded. He had a history of permanent atrial fibrillation (AF) and percutaneous revascularization of ischemic heart disease, with moderate systolic left ventricular dysfunction. For 1 year, he had been a carrier of a Medtronic cardiac resynchronization therapy pacemaker (CRT-P) in VVIR mode for AF with complete atrioventricular block (lower rate limit, 70 bpm; maximum tracking rate, 130 bpm; bipolar sensing and pacing; atrial port plugged for permanent AF).

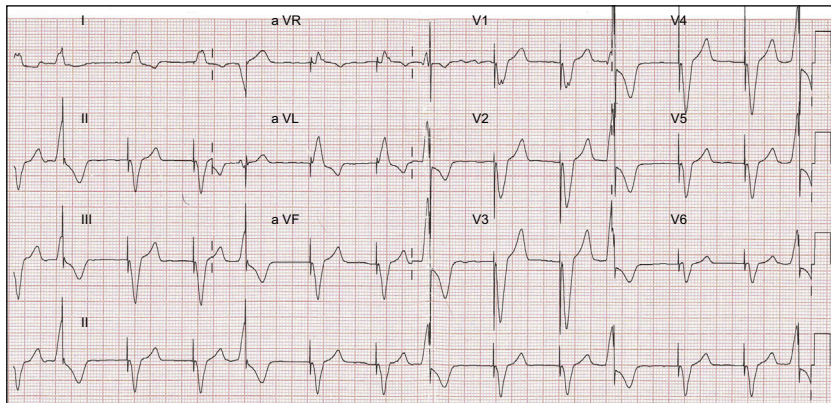


Figure.

In view of the ECG ([Figure](#)), is this pacemaker malfunctioning?

1. The CRT-P device is working appropriately.
2. This is a sensing issue. The intracardiac electrogram of the ventricular extrasystole probably has a lower voltage than the programmed sensitivity.
3. The CRT-P device does not have sensing defects, although resynchronization should be optimized.
4. The CRT-P device is operating after activation of the elective replacement indicator, as it only works with right-sided pacing at the lower rate limit.

Suggest a diagnosis to this ECG Contest at <http://www.revespcardiol.org/en/electroreto/71/12>. The answer will be published in the next issue (January 2019). #RetoECG.

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