Erratum

Pacing on the T Wave: PAVB, Not PVAB

To the Editor:

In the "Focus on ECGs" section of the February 2016 issue, Gahremanpour and colleagues described an interesting case of pacing on the T wave. We completely agree that it was not a sensing issue with the pacemaker and that answer "C" was appropriate. However, in the answer section, the authors described the premature ventricular contraction (PVC) as falling in the postventricular atrial blanking period (PVAB). The PVAB is the interval after a sensed or paced ventricular event, during which any atrial activity is not seen by the pacemaker. In the authors' presented case, there was an atrial pacing stimulus right at the time of the PVC. Therefore, the PVC fell in the post-atrial ventricular blanking period (PAVB) and not in the PVAB.

The PAVB is the interval after an atrial pacing stimulus during which the ventricular event is not seen by the ventricular channel of the pacemaker.⁴ In this case, the pacemaker was not inhibited, and there was subsequent ventricular pacing on the T wave. In that the myocardium was in the refractory period because of the PVC, the V-pacing on the T wave led to physiologic failure to capture, and there was no QRS complex following that V-pacing stimulus.

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References

- Gahremanpour A, Birnbaum Y, Holt TA, Saeed M. Pacing on the T wave: what is the cause? Tex Heart Inst J 2016;43(1):94-5
- Cross-chamber blanking periods in ICDs and CRT-Ds. Available from: http://www.bostonscientific.com/content/ dam/bostonscientific/quality/education-resources/english/ ACL_Cross-Chamber_Blanking_20081219.pdf [cited 2016 Feb 4].
- 3. Hayes D, Levine P. Pacemaker timing cycles. Available from: https://www.blackwellpublishing.com/content/BPL_Images/Content_store/Sample_chapter/9781405104470/Ellenbogen9781405104470.pdf [cited 2016 Feb 4].
- Abuissa H. A pseudo-pseudofusion beat preceding onset of ventricular tachycardia in a patient with an implantable cardioverter defibrillator. J Innov Cardiac Rhythm Manage 2013 May;4:1242-5.