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Letter to the editor

Ischemic Brugada phenocopy during ablation of ventricular tachycardia



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We examined the report by Hori et al. with specific interest in their description of a Brugada ECG (electrocardiogram) pattern observed during ablation of ventricular tachycardia (VT) [1]. Their case provides an important contribution to an expanding database of ischemic Brugada phenocopies (BrP) [2,3].

BrP are characterized by ECG patterns identical to those of Brugada syndrome (BrS), but are elicited under various circumstances [2,3]. They are classified according to six etiological categories: (i) metabolic conditions; (ii) mechanical compression; (iii) myocardial ischemia & pulmonary embolism; (iv) myocardial & pericardial disease; (v) ECG modulations; and (vi) miscellaneous. See www.brugadaphenocopy.com.

The authors [1] presented the case of a 63-year-old man undergoing catheter ablation of ischemic VT. The patient developed a Type-1 Brugada ECG pattern during the procedure, resolving upon observation within two minutes. During this time, the mapping catheter appeared to have been pushed against the left ventricular wall. The patient was subjected to provocative testing with pilsicainide, the results of which were negative.

We believe that this patient developed BrP in the context of ischemia, resulting from direct compression of a coronary artery or vasospasm. Ischemic causes of BrP are not uncommon; however, this is the first confirmed case to observe a BrP during ablation of VT [4,5].

This case has been included in our database as a Type-1A BrP, under the category of myocardial and pericardial disease.

Conflicts of interest

All authors declare no conflict of interest related to this study.

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References

- [1] Hori Y, Nakahara S, Tsukada N, et al. Coved-type ST-elevation during ablation of ischemic ventricular tachycardia. *J Arrhythm* 2015;31(5):316–7.
- [2] Baranchuk A, Nguyen T, Ryu MH, et al. Brugada phenocopy: new terminology and proposed classification. *Ann Noninvasive Electrocardiol* 2012;17:299–314.
- [3] Gottschalk BH, Anselm DD, Brugada J, et al. Expert cardiologists cannot distinguish between Brugada Phenocopy and Brugada Syndrome ECG patterns. *Europace* 2015 Oct 25. pii: euv278. [Epub ahead of print].
- [4] Enriquez A, Brugada J, Baranchuk A. Exercise-Induced Brugada Phenocopy. *J Cardiovasc Electrophysiol* 2015;Sep:16. <http://dx.doi.org/10.1111/jce.12838> [Epub ahead of print].
- [5] Gottschalk BH, Anselm DD, Baranchuk A. Brugada phenocopy induced by ischemia or Brugada syndrome unmasked by ischemia? *Int J Cardiol* 2014;177:619–20.

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