

LETTER TO THE EDITOR

Response to: Brugada Phenocopy: Morphological Classification and Importance of Provocative Testing

Mehdi Rambod, M.D.,* Sherif Elhanafi, M.D.,† and Debabrata Mukherjee, M.D.†

From the *Division of Cardiology, University of Vermont College of Medicine, Burlington, VT and †Department of Internal Medicine, Texas Tech University Health Sciences Center, Paul L. Foster School of Medicine, El Paso, TX

Ann Noninvasive Electrocardiol 2014;19(6):606

electrophysiology; Brugada syndrome; clinical; cardiac arrest; sudden death

We thank Gottschalk et al. for their interest and comment on our case report of possible Brugada phenocopy in a patient with concomitant heroin and ethanol overdose.¹

Heroin abuse and sudden death associated with heroin overdose has increased significantly during the past decade in the United States.² In our case report, we observed electrocardiographic changes that were morphologically similar to Brugada syndrome in a man with concomitant heroin and ethanol overdose. The electrocardiographic (ECG) changes resolved during continuous infusion of naloxone. As explained in our report, the patient denied any prior palpitation, arrhythmia, chest pain, dizziness, syncope, or near-syncope. Also, we mentioned in the report that provocative testing with a sodium channel blocker agent was not done, therefore, a true Brugada syndrome could not be absolutely excluded; however, a negative family history of syncope or sudden death makes the true Brugada syndrome less likely. We would also like to highlight the fact that the first and last electrocardiograms were recorded with same electrodes placement (i.e., electrodes remained in their position after first electrocardiogram until last electrocardiogram was done). Therefore, we think the significant electrocardiographic changes

in leads V₁ and V₂ are unlikely due to displacement of electrodes.

In order to further investigate the case with provocative challenge test, we tried to contact the patient; however, due to circumstances beyond our control, our multiple attempts to find the patient were not successful. We agree with Gottschalk et al. that provocative challenge test plays a pivotal role in differentiating Brugada phenocopy from true Brugada syndrome. We too encourage the physicians who see cases of heroin overdose with ECG changes to further investigate the case with provocative challenge test. This phenomenon, if observed repeatedly, may shed more light on the increased cause of sudden death in patients with heroin overdose.

REFERENCES

1. Rambod M, Elhanafi S, Mukherjee D. Brugada phenocopy in concomitant ethanol and heroin overdose. *Ann Noninvasive Electrocardiol* 2014 Jun 5 [Epub ahead of print].
2. Substance Abuse and Mental Health Services Administration. Results from the 2012 National Survey on Drug Use and Health: Summary of national findings, NSDUH series H-46, HHS publication no (SMA) 13-4795. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013; 2013.

Address for correspondence: Mehdi Rambod, M.D., Division of Cardiology, University of Vermont College of Medicine, McClure 1, Fletcher Allen Health Care, 111 Colchester Ave. Burlington, VT 05401, USA. Fax: (802) 847-4016; E-mail: mehdi.rambod@vtmednet.org

© 2014 Wiley Periodicals, Inc.
DOI:10.1111/anec.12201