In summary, without denying the appeal of ultrasound imaging as a method for diagnosing the origin of wide-QRS tachycardia, it is important to point out that this case was exceptional, and that an accurate diagnosis can be achieved in clinical practice based on patient history and electrocardiography. We should discard criteria such as hemodynamic tolerance that have no diagnostic value and can lead to inappropriate treatment of a regular wide-QRS tachycardia, with serious clinical and prognostic implications.

Pablo J. Sánchez-Millán,* Manuel Molina-Lerma, Luis Tercedor-Sánchez, and Miguel Álvarez-López

Unidad de Arritmias, Servicio de Cardiología, Complejo Hospitalario Universitario de Granada, Granada, Spain

* Corresponding author:
E-mail address: pjsm83@hotmail.com (P.J. Sánchez-Millán).

Available online 28 January 2016

REFERENCES

1. Preza PM. Diagnóstico de taquicardia ventricular por ecocardiografía. Rev Esp Cardiol. 2015;68:892.
2. Miller JM, Das MK. Differential diagnosis of narrow and wide complex tachycardias. In: Zipes DP, editor. Cardiac electrophysiology: from cell to bedside.. Indianapolis: Elsevier; 2014. p. 575–80.
3. Gupta AK, Thakur RK. Wide QRS complex tachycardias. Med Clin North Am. 2001;85:245–66.
4. Wellens HJ. Electrophysiology: Ventricular tachycardia: diagnosis of broad QRS complex tachycardia. Heart. 2001;86:579–85.

SEE RELATED ARTICLE:
http://dx.doi.org/10.1016/j.rec.2014.10.021
http://dx.doi.org/10.1016/j.rec.2015.11.022

http://dx.doi.org/10.1016/j.rec.2015.11.004

Echocardiographic Diagnosis of Ventricular Tachycardia: Is There a Problem With Clinical and Electrocardiographic Diagnostic Criteria? Response

Taquicardia ventricular diagnosticada por ecocardiografía: ¿fallan los criterios diagnósticos clínicos y electrocardiográficos? Respuesta

To the Editor,

I am grateful for the interest shown in the published echocardiography images[1] and agree with the authors that hemodynamic stability in some patients during episodes of ventricular tachycardia can lead to a misdiagnosis of wide-QRS supraventricular tachycardia[2]; it is of the utmost importance to differentiate between ventricular and supraventricular origin because of the worse prognosis of ventricular tachycardia.[3] Nonetheless, the many electrocardiographic algorithms in use have not achieved 100% sensitivity or specificity[4]; moreover, even widely accepted tools such as the Brugada and Vereckei criteria do not achieve the sensitivity or specificity of the original reports when applied by emergency physicians or even cardiologists.[5,6] Furthermore, the specificity of some criteria can be reduced in patients with complete left bundle branch block, as well as in patients with a structurally normal heart.[4,7]

When present, atrioventricular dissociation is one of the most specific practical criteria for differential diagnosis of ventricular vs supraventricular tachycardia,[7] and some authors have therefore suggested the potential diagnostic usefulness of echocardiography.[8–10] The presented case provides an example.

The authors correctly state that clinical and electrocardiographic criteria can establish a diagnosis of ventricular tachycardia in most cases. However, we should keep in mind that resident and emergency physicians have to reach a diagnosis when confronted with acute cases of patients with hemodynamically stable wide-QRS tachycardia; with the echocardiography images presented, my intention was to remind them that they have an additional tool at their disposal for the diagnosis of atrioventricular dissociation.

Paul M. Preza

Servicio de Cardiología, Hospital Nacional Arzobispo Loayza, Lima, Perú

E-mail address: paul.preza.c@upch.pe

Available online 29 January 2016

REFERENCES

1. Preza PM. Diagnóstico de taquicardia ventricular por ecocardiografía. Rev Esp Cardiol. 2015;68:892.
2. Dancy M, Camm AJ, Ward D. Misdiagnosis of chronic recurrent ventricular tachycardia. Lancet. 1985;326:320–3.
3. Raitt MH, Renfroe EG, Epstein AE, McAnulty JH, Mounsey P, Steinberg JS, et al. "Stable" ventricular tachycardia is not a benign rhythm: insights from the antiarrhythmics versus implantable defibrillators (AVID) registry. Circulation. 2001;103:244–52.
4. Jastrzebski M, Kukla P, Czarnecka D, Kawecka-Jaszcz K. Specificity of the wide QRS complex tachycardia algorithms in recipients of cardiac resynchronization therapy. J Electrocardiology. 2012;45:319–26.
5. Isenhour JL, Craig S, Gibbs M, Littmann L, Rose G, Risch R. Wide-complex tachycardia: continued evaluation of diagnostic criteria. Acad Emerg Med. 2000;7:769–73.
6. Baxi RP, Hart KW, Vereckei A, Miller J, Chung S, Chang W, et al. Vereckei criteria as a diagnostic tool amongst emergency medicine residents to distinguish between ventricular tachycardia and supra-ventricular tachycardia with aberrancy. J Cardiol. 2012;59:307–12.
7. Alzand BSN, Crijns HJGM. Diagnostic criteria of broad QRS complex tachycardia: decades of evolution. Europace. 2011;13:465–72.
8. Rückel A, Kasper W, Treese N, Henkel B, Pop T, Meinertz T. Atrioventricular dissociation detected by suprasternal M-mode echocardiography: a clue to the diagnosis of ventricular tachycardia. Am J Cardiol. 1984;54:561–3.
9. Jacobsen PK, Modi S, McCarty D, Klein GJ, Leong-Sit P. Identification of atrioventricular relationship with echocardiography – a useful tool to diagnose ventricular tachycardia. Resuscitation. 2012;83:e212–3.
10. Manyari D, Ko P, Sajad G, Boughner D, Kostuk W, Klein G. A simple echocardiographic method to detect atrioventricular dissociation. Chest. 1982;81:67–73.

SEE RELATED ARTICLE:
http://dx.doi.org/10.1016/j.rec.2015.11.004

http://dx.doi.org/10.1016/j.rec.2015.11.022