

**Ventricular mural architecture. Response****Arquitectura de la pared ventricular. Respuesta****To the Editor,**

We thank Sánchez-Quintana et al. for their interest in the article by Omar Yassef Antúnez Montes.<sup>1</sup> If we correctly understand their main concerns and messages, they have continued to misunderstand the original dissection protocol of Torrent-Guasp, insisting that it was based on some imaginary “pre-existing anatomical boundaries”, thus creating some imaginary “planes of division”.

Although the principle of heart dissection based on the orientation of the predominant fiber at a given point, along with the basic histological compendium, has been presented and explained in detail many times,<sup>2–5</sup> with all its advantages and restrictions, it seems that a certain school of thought still does not understand the principle of “predominance” in the myocardial fiber array. Edward Sallín even demonstrated with mathematical models the requirement of helical fibers to achieve a myocardial work close to 90% ejection fraction.<sup>6</sup>

This correlation<sup>1</sup> is motivated by the peculiar forms in which postinfarction intramyocardial dissecting hematomas dissect planes of cleavage in the areas described by the helical band,<sup>7</sup> and evidently without the intervention of a dissector. As I mentioned previously, myocardial function, is the distinctive feature for determining the credibility of the structure.<sup>1,5</sup>

Omar Yassef Antúnez Montes,<sup>a,\*</sup> Alberto Sosa Olavarría,<sup>b</sup> and Mladen J. Kocica<sup>c</sup>

SEE RELATED CONTENT:

<https://doi.org/10.1016/j.rec.2019.06.013>

<sup>a</sup>Departamento de Docencia e Investigación, Instituto Latinoamericano de Ecografía en Medicina (ILEM), Mexico City, Mexico

<sup>b</sup>Sociedad Venezolana de Ultrasonografía en Ginecología y Obstetricia (SOVUOG), Valencia, Carabobo, Venezuela

<sup>c</sup>Clinic for Cardiac Surgery, Clinical Centre of Serbia, Belgrade, Serbia

\*Corresponding author:

E-mail address: [antunezyassef@gmail.com](mailto:antunezyassef@gmail.com) (O.Y. Antúnez Montes).

Available online 9 December 2019

**REFERENCES**

1. Antúnez Montes OY. Anatomical Correlation of the Helical Structure of the Ventricular Myocardium Through Echocardiography. *Rev Esp Cardiol.* 2020;73:153–160.
2. Torrent-Guasp F, Kocica MJ, Corno AF, et al. Towards new understanding of the heart structure and function. *Eur J Cardiothorac Surg.* 2005;27:191–201.
3. Kocica MJ, Corno AF, Carreras-Costa F, et al. The helical ventricular myocardial band: global, three-dimensional, functional architecture of the ventricular myocardium. *Eur J Cardiothorac Surg.* 2006;29(Suppl 1):S21–S40.
4. Kocica MJ, Corno AF, Lackovic V, Kanjuh VI. The helical ventricular myocardial band of Torrent-Guasp. *Semin Thorac Cardiovasc Surg Pediatr Card Surg Annu.* 2007;52–60.
5. Buckberg GD, Nanda NC, Nguyen C, Kocica MJ. What Is the Heart? Anatomy, Function, Pathophysiology, and Misconceptions. *J Cardiovasc Dev Dis.* 2018. <http://dx.doi.org/10.3390/jcdd5020033>.
6. Sallín E. Fiber orientation and ejection fraction in the human ventricle. *Biophys J.* 1969;9:954–964.
7. Vargas Barrón J, Antúnez Montes OY, Roldán FJ, et al. Myocardial Rupture in Acute Myocardial Infarction: Mechanistic Explanation Based on the Ventricular Myocardial Band Hypothesis. *Rev Invest Clin.* 2015;67:318–322.

<https://doi.org/10.1016/j.rec.2019.08.008>  
1885-5857/

© 2019 Sociedad Española de Cardiología. Published by Elsevier España, S.L.U. All rights reserved.

**Scientific evidence versus expert opinion. Should we modify clinical practice guidelines?****Evidencia científica frente a la opinión de expertos. ¿Debemos modificar las guías de práctica clínica?****To the Editor,**

Transcatheter aortic valve implantation (TAVI) has become the treatment of choice for most patients with severe symptomatic aortic stenosis. The European Society of Cardiology guidelines<sup>1</sup> recommend with a level of evidence based on expert consensus (I-C) that TAVI only be performed in hospitals with on-site cardiac surgery. However, more and more clinical data indicate the value of a different level of recommendation on this topic, one with a scientific basis.

In this regard, data were recently published from a European registry (EuRECS-TAVI)<sup>2</sup> of patients who required emergency cardiac surgery during transfemoral TAVI. Of the 27 760 patients

included, 212 (0.76%) required emergency cardiac surgery; this figure has remained stable since 2014. The most frequent reasons for the emergency surgery were left ventricular perforation and annular rupture, which together occurred in half of the population. At 1 year of follow-up, all-cause mortality was high, even in patients who underwent emergency surgery and who were discharged alive (60%).

In 2014, a substudy of the German TAVI registry<sup>3</sup> was published that compared clinical results between patients who had been treated in hospitals with and without on-site cardiac surgery. In total, 1432 patients were included; 12% (n = 172) underwent TAVI in hospitals without on-site cardiac surgery. Their baseline characteristics were similar (logistic EuroSCORE, 20 ± 11 in centers without on-site surgery and 21 ± 14 in centers with on-site surgery), although the patients treated in centers without on-site surgery were hemodynamically more stable and more frequently had a history of cardiac surgery. Regardless of procedure duration, the complication rates were similar. In the Austrian TAVI registry,<sup>4</sup> 290 patients (15.9%) with high surgical risk who underwent transfemoral TAVI in centers without on-site cardiac surgery were compared with 1532 (84.1%) treated in centers with on-site cardiac surgery. The patients treated in hospitals without on-site cardiac surgery had a significantly worse risk profile:

SEE RELATED CONTENT:

<https://doi.org/10.1016/j.rec.2018.07.010>