



Corrigendum: Real-Time Rotational Activity Detection in Atrial Fibrillation

Gonzalo R. Ríos-Muñoz^{1,2*}, Ángel Arenal^{2,3} and Antonio Artés-Rodríguez^{1,2}

¹ Signal Theory and Communications Department, Universidad Carlos III de Madrid, Madrid, Spain, ² Gregorio Marañón Health Research Institute, Madrid, Spain, ³ Department of Cardiology, Hospital General Universitario Gregorio Marañón, Madrid, Spain

Keywords: atrial fibrillation, multi-electrode catheter, signal processing, real-time, rotors, rotational activity

A Corrigendum on

Real-Time Rotational Activity Detection in Atrial Fibrillation

by Ríos-Muñoz, G. R., Arenal, Á., and Artés-Rodríguez, A. (2018) *Front. Physiol.* 9:208. doi: 10.3389/fphys.2018.00208

OPEN ACCESS

Edited by:

Olivier Bernus,
Université de Bordeaux, France

Reviewed by:

Sanjay Ram Kharche,
University of Western Ontario, Canada

Vadim V. Fedorov,

The Ohio State University,
United States

*Correspondence:

Gonzalo R. Ríos-Muñoz
griosm@tsc.uc3m.es

Specialty section:

This article was submitted to
Cardiac Electrophysiology,
a section of the journal
Frontiers in Physiology

Received: 18 June 2018

Accepted: 21 August 2018

Published: 04 September 2018

Citation:

Ríos-Muñoz GR, Arenal Á and
Artés-Rodríguez A (2018)

Corrigendum: Real-Time Rotational
Activity Detection in Atrial Fibrillation.

Front. Physiol. 9:1260.

doi: 10.3389/fphys.2018.01260

In the original article, we neglected to include the funder Beca de la Sección de Electrofisiología y Arritmias de la SEC. Therefore, the Funding section was updated:

This work has been partly supported by MINECO/FEDER (ADVENTURE, id. TEC2015-69868-C2-1-R), Comunidad de Madrid (project CASI-CAM-CM, id. S2013/ICE-2845), and the grant Beca de la Sección de Electrofisiología y Arritmias de la SEC.

We found a caption error in Figure 8, where labels A–C should be reordered to (A) Sinus Rhythm. (B) Rotor. (C) Chaotic wavefront collision, and the sign of the second reference to $+\Gamma_{th}$ should be changed to $-\Gamma_{th}$. The caption was updated to reflect this change:

Figure 8. Rotational activity detector in *in silico* signals. Detection performed on the three simulation scenarios. The method detects rotational activation if the value of $\Gamma[n]$ exceeds the upper threshold $+\Gamma_{th}$ or falls below the lower threshold $-\Gamma_{th}$. The sign of $\Gamma[n]$ reflects the rotational gyre direction, being positive if the gyre matches the rotation mask spin (clockwise/counterclockwise depending on the chosen pattern), or negative if the propagation rotates in the opposite mask direction. For the simulation cases we applied the detection on the full $\Gamma[n]$ and the interpolated $\hat{\Gamma}[n]$ grids to compare both outcomes. Signals from top to bottom: (A) Sinus rhythm. (B) Rotor. (C) Chaotic wavefront collision. Parameters were $\gamma = 150$ samples and $\Gamma_{th} = \gamma/7$.

Additionally, the caption in the Figure 12 should reference the Figure 7D, and not Figure 3C.

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way.

The original article has been updated.

Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2018 Ríos-Muñoz, Arenal and Artés-Rodríguez. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.