Results from the ACI-SEC Infarction Code Registry. The ECG also exists. Response

Resultados del registro de Código Infarto de la ACI-SEC. El ECG también existe. Respuesta

To the Editor,

The Working Group of the Infarction Code Program of the Interventional Cardiology Association of the Spanish Society of Cardiology appreciates the comments made by Fiol et al.[1] on the ACI-SEC Infarction Code Registry and shares their reflections on the value of electrocardiography (ECG) in infarction code networks. We would like to provide further useful information on 5 aspects of the registry.

Although 5% of the patients lacked information on the baseline ECG, the diagnosis was ST-segment elevation acute myocardial infarction (STEMI) in 62% of these patients (the diagnosis was noncardiological in 31%).

The rate of clinical false positives after an appropriate code activation was 12%, which was in line with the rates identified in the analysis of the Catalonian STEMI network (*Codi Infart*), namely, an angiographic false-positive rate of 15% and a clinical false-positive rate of 12%.[2] In our series, false positives with appropriate code activation had final diagnoses of STEMI (16%), non–ST-segment acute coronary syndrome (22%), myopericarditis (9%), transient apical ballooning (4%), aortic dissection (5%), and other noncardiological diagnoses (44%).

Diagnostic delay in relation to first medical contact (FMC) showed significant differences ($P < .001$) in all times for the different FMCs, and patients treated by the emergency services exhibited a shorter ischemia time.

No information was available on the time from ECG to STEMI code activation but the median times were 7 [4-15] minutes between FMC and ECG and 15 [7-40] minutes between FMC and STEMI code activation. These findings suggest that it took longer to analyze the ECG, establish the diagnosis, and activate the code than to perform the ECG.

In terms of the importance of the interpretation of the diagnostic ECG, differences were seen in the ECG results of patients with an undue diagnostic delay (13% with ST-segment elevation, 34% without ST-segment elevation, 14% with left bundle branch block, 43% with right bundle branch block, and 43% with suspected previous infarction; $P < .001$).

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AUTHORS' CONTRIBUTIONS

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CONFLICTS OF INTEREST

A. Pérez de Prado has received personal remuneration from iVascular, Boston Scientific, Terumo, Braun, and Abbott Vascular. The remaining authors report no conflicts of interest in relation to the content of this article.

Oriol Rodríguez-Leor,[a,b,c,*] Xavier Rosselló,[b,d,e] Ana Belén Cid-Álvarez,[f] and Armando Pérez de Prado[g]

[a]*Institut del Cor, Hospital Universitari Germans Trias i Pujol, Badalona, Barcelona, Spain*
[b]*Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares (CIBERCV), Spain*
[c]*Institut de Recerca en Ciències de la Salut Germans Trias i Pujol, Badalona, Barcelona, Spain*
[d]*Centro Nacional de Investigaciones Cardiovasculares Carlos III (CNIC), Madrid, Spain*
[e]*Servicio de Cardiología, Institut d'Investigació Sanitària Illes Balears (IdISBa), Hospital Universitari Son Espases, Palma de Mallorca, Islas Baleares, Spain*
[f]*Servicio de Cardiología, Hospital Clínico de Santiago de Compostela, Santiago de Compostela, A Coruña, Spain*
[g]*Servicio de Cardiología, Hospital de León, León, Spain*

[*] Corresponding author.
E-mail address: oriolrodriguez@gmail.com (O. Rodríguez-Leor).

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REFERENCES

1. Rodriguez-Leor O, Cid-Alvarez B, Perez de Prado A, et al. Analysis of the management of ST-segment elevation myocardial infarction in Spain. Results from the ACI-SEC Infarction Code Registry. *Rev Esp Cardiol.* 2022;75:669–680.
2. Regueiro A, Fernandez-Rodriguez D, Freixa X, et al. False positive STEMI activations in a regional network: comprehensive analysis and clinical impact. Results from the Catalonian Codi Infart Network. *Rev Esp Cardiol.* 2018;71:676–679.

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