

Letters to the Editor

Reperfusion Strategies in Hospitals Without Primary Percutaneous Coronary Intervention



Estrategias de reperusión en hospitales sin intervención coronaria percutánea primaria

To the Editor,

In the article by Carol Ruiz et al.,¹ in which the authors used data from a registry, they performed a detailed analysis of the factors associated with a prolonged total ischemia time and, ultimately, the final prognosis of patients with acute ST-elevation myocardial infarction (STEMI) referred for primary percutaneous coronary intervention.¹ The authors highlighted, with its inclusion in the title, the importance of the place of first medical contact. In addition to other individual patient characteristics, it is known that the longest delays in accessing primary percutaneous coronary intervention occur particularly with patients whose first medical contact takes place in hospitals without catheterization facilities. It is also known that, even in very established health care networks, a significant number of patients referred for primary percutaneous coronary intervention are treated outside the recommended times, especially when they require interhospital transfer.^{2,3} As the authors themselves remark, there is growing interest in investigating other determining factors, care of older patients,⁴ overnight and weekend care, and more circumstantial aspects such as chronobiological factors related to the final outcome.⁵ All of this in an attempt to establish the best treatment for individual patients throughout the health care process. Therefore, it somewhat surprised us that, in their section on “proposals for improvement”, the authors highlight key actions but do not mention the option of implementing pharmacoinvasive strategies in remote areas and centers with no interventional facilities. The efficacy of this strategy has been widely demonstrated in trials and registries,^{6,7} so it is difficult to comprehend that a health care network, such as that represented by the *Codi Infart* (Infarct Code) in Catalonia, does not include as a suggestion for improvement the option of offering individualized treatment, at least for patients with no contraindications for intravenous fibrinolysis that present in the first 3 hours from onset to centers with no interventional facilities. Many hospitals and health care areas will find it difficult to meet the quality criteria recommended in the clinical practice guidelines for performing primary percutaneous coronary intervention.⁸ Currently, there is no doubt about the gold standard treatment for STEMI, but it seems somewhat misguided that a health care network should have a single objective of primary angioplasty, even though they will not be able to meet the recommended times in a percentage of cases. A statement or opinion is needed from one of the major Spanish STEMI health care networks on establishing equal access (in time and form) to effective reperfusion for patients in areas with logistical or geographical

limitations. Such a discussion, which has been presented and held in other major registries,⁹ is needed to adapt treatment, as much as possible, to the patient and the specific conditions of his or her situation.

Fernando Rosell-Ortiz,^{a,*} Francisco J. Mellado Vergel,^b and Javier García del Águila^a

^a*Servicio de Emergencias 061, Empresa Pública de Emergencias Sanitarias de Andalucía, Almería, Spain*

^b*Servicio de Urgencias, Hospital El Toyo, Retamar, Almería, Spain*

* Corresponding author:

E-mail address: frosell@al.epes.es (F. Rosell-Ortiz).

Available online 10 July 2017

REFERENCES

1. Carol Ruiz A, Masip Utset J, Ariza Solé A. Predictors of late reperfusion in STEMI patients undergoing primary angioplasty. Impact of the place of first medical contact. *Rev Esp Cardiol.* 2017;70:162–169.
2. Terkelsen CJ, Sørensen JT, Maeng M, et al. System delay and mortality among patients with STEMI treated with primary percutaneous coronary intervention. *JAMA.* 2010;304:763–771.
3. Wang TY, Nallamothu BK, Krumholz HM, et al. Association of door-in to door-out time with reperfusion delays and outcomes among patients transferred for primary percutaneous coronary intervention. *JAMA.* 2011;305:2540–2547.
4. De la Torre Hernández JM, Brugaletta S, Gómez-Hospital JA, et al. Angioplastia primaria en mayores de 75 años. Perfil de pacientes y procedimientos, resultados y predictores pronósticos en el registro ESTROFA IM + 75. *Rev Esp Cardiol.* 2017;70:81–87.
5. Barneto-Valero MC, Garmendia-Leiza JR, Bautista-Encarnación D, et al. Variabilidad circadiana de la efectividad de la técnica de reperusión y del pronóstico del infarto de miocardio con elevación del ST tratado mediante angioplastia primaria. *Emergencias.* 2016;28:327–332.
6. Armstrong PW, Gershlick AH, Goldstein P, et al. Fibrinolysis or primary PCI in ST-segment elevation myocardial infarction. *N Engl J Med.* 2013;368:1379–1387.
7. Danchin N, Puymirat E, Steg PG, et al. Five-year survival in patients with ST-segment-elevation myocardial infarction according to modalities of reperfusion therapy. The French registry on Acute ST-elevation and non-ST-elevation Myocardial Infarction (FAST-MI) 2005 Cohort. *Circulation.* 2014;129:1629–1636.
8. Aboal J, Núñez M, Bosch D, Tirón C, Brugada R, Loma-Osorio P. Angioplastia primaria frente a fibrinólisis en pacientes alejados de un centro con hemodinámica. *Emergencias.* 2017;29:99–104.
9. Vora AN, Holmes DJN, Rokos I, et al. Fibrinolysis use among patients requiring interhospital transfer for ST-segment elevation myocardial infarction care. A report from the US National Cardiovascular Data Registry. *JAMA Intern Med.* 2015;175:207–215.

SEE RELATED CONTENT:

<http://dx.doi.org/10.1016/j.rec.2016.11.030>

<http://dx.doi.org/10.1016/j.rec.2017.06.025>

<http://dx.doi.org/10.1016/j.rec.2017.05.031>

1885–5857/

© 2017 Sociedad Española de Cardiología. Published by Elsevier España, S.L.U. All rights reserved.