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Definition of Myocardial Infarction Type 4a: Can We Define Its Diagnosis and Systematize Clinical Practice? Response



Definición de infarto tipo 4a: ¿podemos definir mejor su diagnóstico y sistematizar la práctica clínica? Respuesta

To the Editor,

We thank Lozano et al. for their interest in our article.¹

It is true that scientific societies differ in the criteria they use to define myocardial infarction (MI). Type 4a MI is that occurring after percutaneous coronary intervention and is defined by the European Society of Cardiology as an elevation in high-sensitivity cardiac troponin (hs-cTn) ≥ 5 times the 99th percentile upper reference limit (URL) if this is accompanied by electrocardiogram changes, the appearance of new Q waves, and imaging or angiographic evidence of myocardial ischemia.¹ In contrast, the Society for Cardiovascular Angiography and Interventions (SCAI) defines “clinically relevant” postrevascularization MI as an hs-cTn increase ≥ 70 times the 99th percentile URL in the presence of new pathological Q waves or new persistent left bundle branch block.² These divergent definitions are based on different scientific evidence. The European Society of Cardiology definition of type 4a MI is based on optimal hs-cTn thresholds that have been validated for the prediction of cardiovascular events in recent studies.³ The SCAI definition is based on the assumption that the optimal biomarker for defining clinically relevant MI after percutaneous coronary intervention is the serum creatine kinase MB fraction (CK-MB)³; the proposed hs-cTn threshold of ≥ 70 times the 99th percentile URL is calculated from the 7:1 ratio between troponin and CK-MB and was shown in a previous study to be a reliable proxy for elevated CK-MB.⁴

Clinical practice guideline recommendations should be the servants, not the masters, of clinical judgment. Adherence to this guiding principal will help us to improve the quality of care for our patients and balance the costs and benefits of the techniques used.

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Validity of the Minimum Basic Data Set for Research Into Outcomes of the Care of Acute Coronary Syndrome



Validez del Conjunto Mínimo Básico de Datos para la investigación de resultados en la atención al síndrome coronario agudo

To the Editor,

We have read with interest the article by Bernal et al.¹ published in *Revista Española de Cardiología* and would like to make several comments.

First, we would like to congratulate the authors on their study and on the research topic chosen. In the era of big data, new opportunities to use large databases have greatly enhanced prospects for research into health care outcomes. The study by Bernal et al. is a clear example of the usefulness of the minimum