

## Letters to the Editor

**Clinical Treatment and Prognosis in Patients With Acute Coronary Syndrome and Anemia****Tratamiento clínico y pronóstico en pacientes con síndrome coronario agudo y anemia****To the Editor,**

We read with great interest the thought-provoking study reported by Raposeiras Roubín et al.<sup>1</sup> about the impact of severe anemia on the treatment and outcome of patients with non-ST-elevation acute coronary syndrome. We share the authors concern for these patients, given that they represent a numerous group that is almost always systematically excluded from the clinical trials that form the basis of the clinical guidelines.

It is well known that, despite the recommendations made by the guidelines, the highest-risk patients with non-ST-elevation acute coronary syndrome usually receive the most conservative treatment according to the different registries available.<sup>2</sup> One of the most widespread interpretations of this apparent contradiction is that these patients have a higher hemorrhagic risk and more comorbidities. Thus, anemia is usually associated with older age and more comorbidities and a more conservative treatment, both in terms of the antithrombotic regimen and the use of an invasive strategy. The data published by Raposeiras Roubín et al.<sup>1</sup> confirm this hypothesis, given the greater age and incidence of the main comorbidities in this subgroup of patients with hemoglobin < 10 g/dL, as well as the lower percentage of patients who undergo invasive strategy compared with those with mild anemia or no anemia.

A noteworthy finding of this series is that there were no differences in the prevalence of the main comorbidities according to whether the patients underwent an invasive strategy within the group with hemoglobin < 10 g/dL. In our opinion, it is likely that factors such as the presence of active hemorrhage, the risk of hemorrhage, or the physician's subjective perception of frailty may have been significantly different according to whether the patient underwent catheterization. Thus, the systematic quantification of factors such as frailty, prior functional status, and comorbidities<sup>3,4</sup> could help reduce the uncertainty regarding risk stratification in acute coronary syndrome in real-world patients.

On the other hand, there is little information published on the specific causes of death in patients with acute coronary syndrome and anemia. In younger patients, recent data suggest a greater contribution of noncardiac causes.<sup>5</sup> In our opinion, this is a fundamental topic in the analysis of the prognostic impact of an invasive strategy in non-ST-elevation acute coronary syndrome in patients with anemia, given that cardiac deaths could in theory be reduced with a more aggressive cardiac treatment although some

noncardiac deaths (renal failure, bleeding complications) may increase, as noted by the authors.

Irrespective of these considerations, we feel compelled to congratulate the authors on their brilliant study. We believe there is a particular need to encourage rigorous, high-quality research into the treatment and prognosis of patients with comorbidities, who are often excluded from clinical trials. Studies such as that by Raposeiras Roubín et al.<sup>1</sup> are without doubt a stimulus for such studies.

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