

Letters to the Editor

Cardiovascular Disease in the Elderly: Comment

Enfermedad cardiovascular en el anciano: comentario

To the Editor,

We have read with interest the review article by Jackson et al.¹ on cardiovascular disease in the elderly. An important conclusion of the article is the lack of scientific support for therapeutic strategies in this population, due to the frequent exclusion of elderly patients from clinical trials. This is a common situation in relation to the different diseases mentioned in the article and, in particular, to myocardial infarction (MI). In the section devoted to this disease, the authors summarize the special features of fibrinolysis (FL) and percutaneous coronary intervention (PCI) in this age group. Following our recent articles on the subject,^{2,3} we would like to offer several comments.

First, eligibility for reperfusion therapy crucially depends on the temporal stage of MI at the time of presentation, and the risk of complications at baseline. Both these factors are influenced by age.^{4,5} Delays in presentation increase with age due to the decreased perception of pain, cognitive impairments, comorbidities (“distractors”), or social limitations.⁶ This delay is strikingly longer in community registries (patients 75 years and older) than in clinical trials (4.7 h vs 2.1 h, respectively).^{7,8} However, even in the latter case, advanced age is associated with delayed presentation and an increased risk of complications.⁸

On the other hand, the authors refer to intracranial hemorrhage (ICH) secondary to FL. Although ICH is a catastrophic event, death from other causes remains the most common adverse event in elderly patients with MI; specifically, there is a high rate of electrical and mechanical complications (eg, free-wall rupture, cardiogenic shock). In an analysis of 706 patients with MI aged 75 years or more, free-wall rupture was more frequent among those treated with FL (17.1%) than in those undergoing PCI (4.9%) and even in those not receiving reperfusion therapy (7.9%).⁹ In fact, FL could have a deleterious effect on very elderly patients. Thus, the management of these patients remains an open question. Lenderink et al.¹⁰ demonstrated the usefulness of a group of variables to predict early mortality, most of which are available at the time of admission. These were used to develop and validate a risk model that was especially calibrated for elderly patients and which was proposed as an additional tool with which to choose the best therapeutic approach. However, the final decision continues to be made individually, taking into account the best outcome as well as the most humane choice regarding a serious disease with frequent and fatal complications. Moreover, the principle of patient autonomy (respect for their preferences) should play a

role in our decisions; the patients' wishes not to undergo invasive procedures are specifically mentioned in the clinical practice guidelines.^{4,5}

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Available online 17 November 2011

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Undernourishment and Prognosis in Heart Failure

Desnutrición y pronóstico en insuficiencia cardiaca

To the Editor,

We were very interested to read the article by Bonilla-Palomas et al., “Influence of undernourishment on long-term mortality in

patients hospitalized for heart failure” (*Influencia de la desnutrición NS la mortalidad a largo plazo de pacientes hospitalizados por insuficiencia cardiaca*),¹ in which the authors analyze nutritional status (NS) and its influence on patient prognosis after acute hospitalization for heart failure (HF). The role of NS in the prognosis for HF has also been studied by our group with a similar follow-up period (median: 26.7 months) in an outpatient context.² The results from both studies indicate that properly nourished

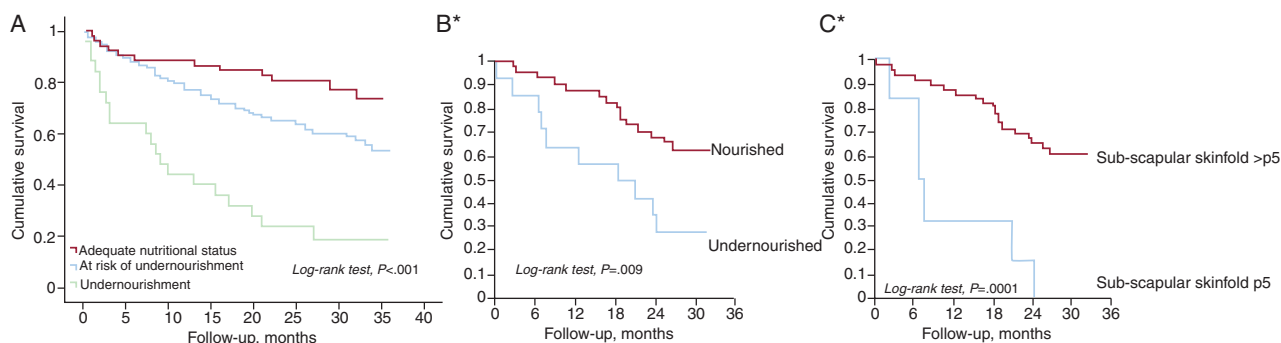


Figure 1. Kaplan-Meier survival curves for the population from Bonilla-Palomas et al., organized according to Mini Nutritional Assessment (A) and the population from Gastelurrutia et al. according to the combination of undernourishment markers (B*) and sub-scapular skinfold (C*).

*Taken from Gastelurrutia P et al.² with the permission of Elsevier.

patients have a significantly higher cumulative survival rate than undernourished patients (Fig. 1).

The definition of undernourishment is heterogeneous, since there are several different methods used to evaluate NS and no single method of choice exists. The Mini Nutritional Assessment (MNA) is a method suggested by many authors to provide a rapid and simple evaluation of NS. However, HF patients frequently are not euvoletic during their evolution,³ and the MNA includes a measurement of body mass index (BMI), which is based on weight. In hyperhydrated patients, an excessively high weight value would ensue, causing error that would be based on the level of liquid retention and the dose of diuretics received by the congestive patients. As such, we believe that a more appropriate method for evaluating NS would be one that does not require a measurement of patient weight. In our study, we used a definition for undernourishment that combined 2 or more nutritional markers from among the most commonly used in the medical literature (albumin, total lymphocytes, triceps skinfold (TSF), sub-scapular skinfold (SF), and mid-arm muscle circumference) within a threshold of normality.^{4,5}

In the study by Bonilla-Palomas et al.,¹ albumin markers and TSF were analyzed as possible predictors of mortality in a multivariate analysis and were eliminated from the model. However, continuous variables were used in lieu of categorical variables as in the MNA (undernourished/not undernourished). In our study, the parameters that retained their statistical significance with mortality were lymphocytes and subnormal SSF. Upon inclusion in the multivariate analysis, SSF remained in the model along with New York Heart Association functional class and age. The measurement of SSF is quick and simple, and can serve as a screening process for HF patients with worse prognosis. These results must be confirmed by more powerful studies.

It is vital to understand the type of undernourishment suffered by these patients, and the application of parameters that elucidate the proteic (albumin, visceral protein or mid-arm muscle circumference, muscle protein), caloric (subcutaneous skinfolds), and immune (lymphocytes) aspects of undernourishment can be very useful for a better understanding of the situation, allowing for appropriate interventional strategies. Both studies were carried out taking into account mortality due to any cause. It would be interesting to examine whether the results from both studies would be maintained after an analysis based on type of mortality, especially cardiac-related mortality. In this context, our group is

performing a larger clinical trial in an attempt to answer these questions (NCT01396824).

We are in agreement with Bonilla-Palomas et al.¹ and the editorial accompanying the article⁶ in that the evaluation of NS should be a part of the integral evaluation of patients with HF. Statistically powerful studies are also needed to evaluate the effect of possible interventional strategies in undernourished patients with HF.

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Available online 22 October 2011

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